THE

MEDICAL EXAMINER,

AND

RECORD OF MEDICAL SCIENCE.

NEW SERIES.—No. XXXIII.—SEPTEMBER, 1847.

ORIGINAL COMMUNICATIONS.

Otorrhœa. By JAMES BRYAN, M. D., Lecturer on Surgery, formerly Professor of Surgery and Medical Jurisprudence in the "Academy of Medicine," Castleton, Vermont, &c., &c.

The subject of otorrhœa, or a discharge, sometimes purulent, from one or both ears, is one of considerable importance, both to the patient and to the medical practitioner. The disease is very common, particularly in infancy and childhood. From being at first a discharge from the lining membrane of the meatus auditorius externus, affording relief to some other local irritation, and acting on the principle of *counter-irritation*, it becomes chronic, and is itself a disease.

In teething, ophthalmia, and other inflammations, nature very commonly establishes this discharge, which undoubtedly relieves these diseases.

From this fact, which is matter of common observation, both among the profession and the people, together with the aphorism which says, "Suppression of discharges from the ears, induces diseases of the brain," it is an every day affair to see otorrhœas entirely disregarded, and no means whatever taken to heal them.

So general is this, that individuals reach the period of puberty with this affection in one or both ears. The evil consequences of such continued disease, with a regular purulent discharge for years, (in one case lately under my care of thirty-two years) may

be easily conceived. The lining membrane of the meatus becomes thickened; the membrana tympani is destroyed; the bones of the ear are loosened and discharged, the inflammation, as I have seen in more cases than one, attacks the mastoid cells, and forms fistulæ opening externally.

In some cases the progress of destruction is more summary, and the disease, passing through the delicate organs of hearing, attacks the membranes and even the substance of the brain, producing *then*, and not till then, "convulsions" and death.

The latter termination, though by no means so frequent as might be imagined from the proximity of the disease to the cerebral organs, is yet sufficiently common to make the subject a matter of grave consideration. At the same time it must be borne in mind, that this *introcession* is liable to take place at any time during the existence of a chronic otorrhœa; and particularly is it the case on exposure to a cold and damp atmosphere, or to any of the causes of colds or inflammations.

The evils, then, of the prolongation of this disease, may be arranged as follows:

First. It is inconvenient, the fluids not unfrequently being very offensive.

Secondly. A permanently diseased condition of the meatus auditorius is produced—or, the bones being attacked, we may have ulceration or suppuration established in the cellular structure of the mastoid process, which may continue for a long time.

Thirdly. The destruction or ulceration, or what is *very* common, the thickening of the *membrana tympani;* the latter result being, not unfrequently, induced in a few days from an otorrhœa. It is well known, in fact, that a very large proportion of individuals, who are supposed to possess good hearing, have partial deafness in one ear at least, and sometimes in both, from this cause.

The ulcerative process takes place rapidly in the delicate diaphanous membrane of the tympanum; and although it has been shown by some good writers that the perforations induced by ulceration, may, by proper treatment, be healed; yet where there is no treatment, and the ulcerations heal up in the ordinary course of the disease, it is fair to infer, that the perforations remain for life. I recollect when a boy, in company with others, boys and men, a common amusement among them was to blow smoke from the segars they were using, *through their ears.* And a considerable per centage of these individuals in a country village could perform this feat. The destruction of the membrane itself, however, I suspect, is the most usual termination of the disease. After this it not unfrequently gets well itself, and the discharges cease.

Fourthly. The ossicula auris are loosened and discharged, and

the fenestra ovalis is exposed to the contact of atmospheric air. The apparatus so important to good audition—viz., the membrana tympani and bones of the ear—being lost, the function must necessarily be very much impaired; in some cases the Eustachian tubes close, and in this way the external and middle ears are entirely impaired.

Fifthly. The possible, nay probable, occurrence of a transfer of the inflammatory action to the brain or its membranes, by metastasis or *continuous* inflammation, is an argument of the highest importance in this discussion.

Sixthly. The partial or complete loss of the function invariably accompanying the disease, should be inducement enough for us to investigate the propriety of allowing these discharges to continue, without medical interference.

The arguments in favour of non-interference may be summed up in a few words:

First. It is a diverticulum of nature which it is dangerous to interfere with.

Secondly. It very frequently (the object of nature being obtained) heals up itself, leaving no great derangement of the organ.

In reference to the first, we would remark that although a diverticulum, or source of counter-irritation, and in some cases protecting important organs, yet the seat of the discharge is itself an important organ, and no man would select *that* as the place to establish counter-irritation in the case of disease in any other organ, especially as it is well known that a purulent discharge from behind the ear, the back of the neck, or the arm, would be productive of all the good effects claimed for a discharge from this locality.

We might with the same propriety establish inflammation in the eye ,for the relief of cerebral, dental, or aural diseases, and in this way impair or destroy the function of that organ, whose structure is so delicate, and yet no *more* delicate than that of the ear.

But, say the advocates of the do-nothing-practice, what are you to do? "Suppression of discharges from the ears induces diseases of the brain," and daily experience shows this to be a fact. Granted. Cannot the disease be *transferred* from the organ of hearing to some other less important part, and there maintained to an indefinite period without the danger of producing any evil consequences? Certainly it can; and if not *cured* in the sense meant by the above aphorism, yet its seat of action may be changed, and ultimately, by judicious attention to the case, allowed to heal up entirely, as is the practice in almost any other instance, where for a time an issue or purulent discharge is desirable. There is nothing peculiar in the structure of the ear, that

gives it any superiority as a seat of inflammatory action, to relieve other parts in a diseased or tending to a diseased condition. So far from this being the case, we are of the opinion that the skilful physician is not justified in allowing this discharge to continue a *single day* in *any* case, where he, by slight irritation behind the ear, or the back of the neck, or other parts, is enabled to arrest it, but on the contrary he should be as anxious to stop it as he is to arrest a purulent ophthalmia or other inflammatory affection of the eyes.

We cannot agree with Dr. Bonnafont, as quoted in No. 5, of "Ranking's Abstract," that "chronic mucous discharges from the ear are always owing to ulceration of the parietes of the external auditory canal, or of the membrane of the tympanum." For it is well known that polypous and other growths produce the same discharges, and great care should be taken in the examination of the auditory canal, with the speculum in a *sun light*, lest these productions escape our notice. They should, in fact, be always *suspected* to exist in cases of chronic otorrhea. That "these discharges, generally very easily treated in their acute stage, frequently become very obstinate, and terminate in disorders which almost always involve a more or less serious degree of deafness, and sometimes the death of the individual," are facts which should influence the profession, we are fully convinced.

We have found, in reference to the treatment, that in the early stages, in uncomplicated cases, the production of moderate irritation behind the ear—with careful syringing, first with tepid water, to wash out the secretions, followed by a solution of the plumb. acetat. in the proportion of from two to six grains to the ounce of distilled water—all that was necessary. A small half-moon blister, or a drop or two of croton oil, or the latter used in the form of unguent, are means usually resorted to, to establish this irritation. When complicated, however, with general or local disease, acting as concomitant, and sometimes, as the cause of the otorrhea, the treatment must necessarily be varied to suit the case. Scrofula, particularly in children, is a very common condition connected with the disease, and requires the usual constitutional treatment, in addition to the local applications. General debility, gastric irritation, papular eruptions, spreading erysipelatous and other cutaneous diseases, induce otorrhœas, and should be treated accordingly. Cases of simple acute otorrhœa, induced by cold or any of the common causes, are treated so successfully by the above, or similar means, that the publication of cases would scarcely be deemed advisable. Of the chronic forms, however, which are considered more difficult to cure, and many of which are absolutely incurable, the following cases may be found instructive.

Miss B., aged fourteen years, light complexion, rather full habit, has had a discharge from both ears for about a year; hearing distance with a watch in left ear, one foot; in the right the watch could be heard indistinctly when placed in contact with the ear. The treatment consisted in washing out the canal well, with tepid water, and then throwing in the aqueous solution of the acetate of lead; four grains to the ounce; and the application of blisters behind the ears. The hearing began to improve immediately, so that at the end of a week the discharge from the left ear had ceased, and the hearing distance increased to six feet. The hearing distance in the right ear was restored to four inches, the discharge continuing. At the end of four weeks the improvement in the right ear became stationary, at ten inches hearing distance; the discharges though small, remained.

On close inspection it was found that a moderate sized polypous growth had been overlooked, on account of the tumefaction in the first examination, in the lower part of the middle third of the auditory passage. This was carefully excised, and the blister-surface restored behind the ear,—with the use of the aqua plumbi. In four days the discharge had nearly ceased; the hearing distance advanced to two feet; and in ten days the discharge of both ears no longer existed; the hearing distance was respectively six and ten feet.

Second case, August 1846.—Mr. B., an artist, dark complexion, aged thirty-four years, has had a discharge from both ears ever since he was two years old. The hearing distance, as indicated by my watch was, in the left ear two inches, in the right ear four inches.

On examination with the speculum, the membrane of the tympanum of *the left ear* was entirely destroyed, together with the bones of the middle ear. When air was driven by the patient through the Eustachian tube, the fluids were *seen* to bubble and heard to rattle in the ear.

The discharge from this ear was not great, and chiefly of a thin watery character.

The membrane of the tympanum of the right ear was destroyed to about two-thirds of its extent, and the bones of the ear were exposed; the handle of the malleus projected into the portion of the membrane which remained, which was also thickened and ulcerated, discharging with the surrounding surface a large quantity of fœtid purulent fluid. The Eustachian tube was here also pervious, as shown by the air press and catheter, and by voluntary sufflation.

Half moon blisters were applied behind the ears, and an ear lotion of four grains of the acetate of lead, to an ounce of water

was directed, to be applied after carefully syringing the ears out with clean tepid water three times a day.

This treatment was continued with the use of a mild astringent gargle, (the throat being slightly inflamed) for three days, when my patient left the city for his residence, some eighty miles distant, in New Jersey, to return at the end of a week or ten days.

On the 31st of August he again called upon me, and I found the blistered surface healed. The discharge from the left ear had ceased, and the internal surface was dry and shining. The hearing distance had increased to four inches.

The discharge from the right ear had diminished, but the process of destruction was evidently still going on. The hearing distance had however improved to about five inches. The blisters were re-applied with directions to add a small quantity of the ceratum cantharidum to the ordinary dressings, in order to keep up the irritation and discharge. The strength of the lotion was increased to six grains of the acetate of lead to the ounce, and the fluid extract of sarsaparilla, as prepared by Maris & Co., of this city, was directed to be taken in teaspoonful doses twice a day. The gargle to be continued—exercise in moderation to be taken, and to avoid coffee, and most of the unnecessary stimulants. On the 2d of September he left for his home, the hearing distance having increased to six inches in the left, and seven inches in the right ear. The discharge from the right ear almost nothing.

Sept. 17th. The hearing continues in the improved condition; the discharge from right ear still to a small extent. The sulphate of copper in solution was directed as a lotion. The etherial vapour was introduced a few times through the Eustachian tubes, with some small improvement in the sensibility of the nerves of audition. The ears were directed to be kept warm, and protected from dust and changes of temperature, by the use of wool in the auditory canal.

On the 19th patient left the city for his home, with the hearing improved in the right ear to ten inches, the discharge having *entirely ceased;* and in his left, to something more. One year nearly has passed away and the improvement continues.

Other cases might be taken from our case-book, but we did not design to make a long article; "sapienti verbum sat."

Practical Observations on Ship Fever as it prevailed in Philadelphia and its environs, in the months of June, July, and August, 1847. By Laurence Turnbull, M. D.

This disease prevails at the present time to some extent as an epidemic in our city and suburbs. During the last three months, there have been over three hundred cases admitted into the

almshouse, and a corresponding number under the care of physicians resident in the city. Having had a number of cases in charge, I have taken this method of making known my views of its nature and treatment, hoping my endeavors may add something to the general stock of knowledge concerning it.

The first great cause of this fever may be traced to the starving state of the population of Ireland; with the subsequent crowded condition of our immigrant ships, without a proper attention to cleanliness and ventilation on the part of their commanders; thus causing the generation of an animal effluvium, which, contaminating the surrounding atmosphere, is received into the lungs, thence proceeding into the circulation. The extreme series of organic capillaries being thus irritated, occasions a subversion of the existing mode of action, through which the different secretions and functions are diminished, increased, or modified.

This disease attacks all ages, from the infant to the old man, and not the poor immigrant only, but the residents of our city, passing by means of this contagious effluvium into the lungs of all constantly exposed to its baneful influence. There cannot be a doubt concerning its contagious nature, as nine of the most severe cases out of twenty-one, in my own practice, were those residing in the same houses with the sick, none of them having been on board ship, but citizens for some time.

The period which elapses before the disease shows itself averages from one to two weeks, but in most cases it makes its appearance in a few days after leaving the vessel.

Nearly every ship which enters our port brings a greater or less number of invalids, some having suffered for twenty-six and twenty-eight days, without proper nourishment or medical attendance. In many instances, the number of passengers in the Liverpool packets to New York, has exceeded five hundred, and the regulations of those ships obliged them to leave their berths between the hours of three and four, A. M., for the purpose of cleansing them, so much water being used in this process as to leave them in a damp and unhealthy condition for many hours. The water for culinary purposes was not distributed until nine, so that the strong and active alone procured a meal before twelve or one, P. M. To insure personal cleanliness for those who were not so disposed, a barrel of water was provided and a portion of it poured over the poor creatures, who were not even fortified by proper food. It cannot therefore be a matter of astonishment that a number should be sick on the voyage, and a still larger number fit only for the hospital on their arrival, having had within the vessel all the elements to generate typhus fever. First, their crowded condition; secondly, their want of proper rest; thirdly, the want of proper nourishment; and

fourthly, the damp condition of their sleeping and eating apartments.

The authorities now remove the sick either into the Lazaretto or the fever hospital at Bush Hill, which was opened for the reception of patients on the ninth of July, under the charge of Drs. L. W. Knight and William Ashley; one hundred and eighty cases having been admitted from that time up to the eighteenth of August. Of that number thirteen have died, thirty have been discharged cured, and one hundred and thirty-seven remain under treatment.

Of the thirteen cases which terminated fatally, three were in a dying state when admitted, and three died of purpura hæmorrhagica, marasmus and phthisis pulmonalis, thus considerably reducing the number of deaths by fever, and showing that the mortality is small in comparison with the accounts received from Canada and New York.

The situation of the hospital is very favourable, being light, dry, and well ventilated. The only objection is the want of space, obliging them to crowd the wards, so that dysentery or diarrhœa occurring as a complication, it is apt to assume a malignant form.

The premonitory symptoms are as follows: Slight chill, skin hot and dry, nausea, and in some cases vomiting, muscular pains in the back and limbs, with intense pain in the frontal region, increasing from the first to the sixth day. Tongue of a whitish color over the surface, tip of bright red; pulse averaging from eighty-six to one hundred and twenty, with bowels costive.

These symptoms continue for several days, when the skin becomes of a dusky red, the eyes are injected, tongue covered with a thick yellowish, brown, or black paste; teeth covered with sordes; acute pain over the epigastric region, with skin covered with a petechial eruption coming out from the sixth to the tenth day. Delirium now supervenes, with congestion of the lungs, brain or bronchial tubes, generally accompanied by deafness, with spasmodic twitchings of the muscles, and in some cases dysentery and profuse sweats, not of a critical nature.

These symptoms either increase or diminish towards the thirteenth or fourteenth day, or may terminate in death from the twentieth to the thirtieth day, the liability to relapse being very great in all cases.

I have found the following symptoms favorable when occurring about the fourteenth or twenty-first day: tongue becoming moist, first at edges; slight salivation; pulse fuller and slower, with tongue not tremulous when protruded. Unfavorable symptoms: great muscular debility; decubitus, or gliding down to the bottom of the bed, picking at the clothes, or catching at imaginary objects.

Treatment.—In the first stage a gentle aperient of oleum ricini or mild neutral salt. Second stage; to diminish the fever by freely

sponging the body with tepid water, with the free use of ice or neutral mixture. Thirdly; to subdue local inflammation by cups or leeches, and by applying cold by means of ice to the head, or blister to the nape of the neck, with small doses of hydrargyrum cum cretâ and pulvis rhei. Lastly; to give quiniæ sulphas in pills of one grain three times a day, with from f℥iv. to f℥vi. of port wine.

By following the above course of treatment, bearing in mind ventilation and cleanliness, with a simple farinaceous diet, out of twenty-one cases I have lost but two, and regretted much that in both instances there was no opportunity for a post mortem examination.

385 *Spruce street, Philadelphia.*

BIBLIOGRAPHICAL NOTICES.

The South-Western Medical Advocate. Edited by James Conquest Cross, M. D., Professor of the Institutes of Medicine and Medical Jurisprudence in the Memphis Medical College, assisted by his colleagues. No. 1. Vol. 1, for July 1847. Memphis, Tennessee.

It has ever been our wont to herald every new labourer in the arduous, responsible, and, too often unrequited and thankless field of medical journalism; and with sincerity have we welcomed them when ushered into existence under the banner of chivalry and honour, even although they may have attached themselves to some particular school or clique, whose interests they professedly watched over. The number of the Journal—if so it may be called—before us, by its very title indicates that it is not free from such bias; nor do we object to it on this account. To be the organ of the profession in the south-western portion of this extensive country would be an enviable position for the editor; but we feel assured, that if the forthcoming numbers are to be judged of by the present, the high-minded and liberal practitioners of that region will eschew it, and deny that the unqualified and reckless assertions contained in it are participated in by any one of them. The advocacy of south-western medicine is, however, but an infinitesimal portion of its objects. The grand *desideratum* is "to establish a medium of communication be-

tween the *Memphis Medical College,*" [an institution established immediately after the editor left the Transylvania school]—"and the *Medical Public* of the south-west;" and a secondary—perhaps primary—object would seem to be, to enable the editor to rail against all who have in any manner interfered with his devious course, and especially against his former colleagues of the University of Transylvania, who, some time ago, published, under their own signatures, statements, which it would be difficult to believe were without foundation, and from which, unquestionably, it has not been an easy matter for the editor to exonerate himself. Of this controversy, notwithstanding the number of missives that have reached us, we have hitherto expressed no opinion. For the sake of the individual most deeply concerned, as well as of that of the profession to which he belongs, and of the respectable school of which all the controversialists had formed part, we were silent: and we had hoped, that some discretion would have been exercised, and that if it had been deemed proper that such a discourse as the one that *fills* the first number of the "*South-Western Medical Advocate*" should be *delivered*, it most assuredly would never be *published*,—even although requested by a Board of Trustees, and by a medical—always indulgent—class.

The number before us is truly a "psychological phenomenon." It is *wholly* occupied with "*An inaugural discourse on the policy of establishing a school of medicine in the city of Memphis, Tennessee.*" It is essentially the editor and the Memphis Medical School—*Ego et rex meus!*—A goodly portion treats of the editor; another portion of the Memphis Medical School; whilst no little space is devoted to the threadbare arguments on "sectional medicine," and to show, that a south-western physician must be educated in the south-west,—of course at Memphis, upon the same principle, we presume, as the old Joe Miller belief, that if a man be born in a stable he must necessarily be a horse;—that northern schools are inadequate to teach southern students,—that northern pathology and therapeutics are not southern pathology and therapeutics;—and farther, that the respectable gentlemen who fill so well the different chairs in Louisville, and in Lexington,—where the editor himself taught so lately, and for which he was so long the energetic advocate,—are wholly unfit

to teach those who are destined to be south-western practitioners. What will the veteran professor of the former school—who has been so long the ardent advocate of "sectional medicine,"—as it has been termed—say to this? when he finds his own arguments returned to him, and that he and his colleagues are deemed as unfit to prepare students for the south and southwest, as we of the north are?

But all these views, and the establishment of the Memphis Medical school itself, are—it would seem—the suggestions of the purest philanthropy, untainted by the slightest selfish motive!

"Is another school of medicine necessary? This we have alleged; but an unsupported and independent assertion upon so important a subject, would be justly treated with ridicule and contempt, and unless we shall be able to appeal to satisfactory reasons, flowing from public necessity, there will be ground to suspect, if not to believe, that the individual who now addresses you, as well as those with whom he is associated, have been induced to embark in the enterprise from exclusively selfish considerations. Than this, we are sure, no more unjust or injurious imputation could be cast, at least upon our colleagues." [A wise reservation!] "We hope, therefore, to receive a patient, if not an indulgent hearing, while an attempt is made to recount to you some of the leading considerations that have caused the present enterprise to be undertaken." p. 3.

One of these "leading considerations," to which the editor repeatedly refers, is, that "in the schools of the north, as well as in those of Kentucky and Ohio, not a single teacher is to be found, who, from personal observation and experience, is qualified to impart a correct knowledge of the nature and treatment of the diseases that prevail in the South. This fact, which is utterly incontestable, has failed to attract the attention to which it is entitled, and although there may be those disposed to overlook or underprize it, in my humble judgment, it is of very great if not paramount importance." p. 5.

And are these the views the editor has always maintained? We suspect not;—for we have a faint recollection of his having visited the northern cities, some years ago, for the purpose of procuring a Professor of the Principles and *Practice* of Medicine, for the medical department of the University of Transylvania, when he most strenuously but unsuccessfully exerted himself there

for that purpose. He may reply, indeed, as did another professor of the west, on a different occasion, that he was then acting for his colleagues, not for himself. The professor alluded to had been a zealous teacher in a town of not more than eight thousand inhabitants, which *then* he thought, or maintained, possessed the necessary facilities for anatomical and clinical instruction. On being translated, however, to a town of thirty thousand inhabitants—*cœlum* et *animum mutat*—he now finds that the former position was totally devoid of the requisite facilities; and loudly proclaims the superior advantages, in these respects, of his new position. On being asked how he reconciled his *past* and his *present* views: he replied, that in the former case he was but expressing the views of his colleagues, in the latter his own!

The editor may say, that his agency for the Transylvania school, and the arguments which he adduced in its favour, were but the delegated views of others; but he certainly succeeded in impressing those with whom he came in contact, that they were as strongly his own.

But when did he first learn, that the schools of Kentucky and Ohio are liable to these same objections that have been imagined to apply to the northern? Only, we apprehend, since he quitted so summarily the one to which he was attached, and to which he alludes so bitterly in many parts of his "Discourse." He suffers, indeed, no opportunity to pass by for vilifying it, or some of its able teachers. Thus, when referring, in a note, to Dr. Condie's opinion, that the immense doses of sulphate of quinia given by many of the southern physicians are "certainly excessive and uncalled for," he exclaims:

"How does he [Dr. Condie] know? Has he ever seen a case of congestive remittent fever in the South? No. Then he knows nothing about it, and has no right to question the skill and judgment of those who are familiar with the subject. This is like the philippic which Dr. Dudley is in the annual habit of pronouncing against quinine and iodine; and yet he has the assurance to tell his classes he never employed them in his life." p. 6.

And again:

"The diseases of the northern part of Kentucky, and of the

whole of Ohio, differ in several striking respects, from those that are observed in lower latitudes: those, therefore, who undertake to teach medicine in either Louisville, Cincinnati, or Lexington, without having previously acquired a personal knowledge of those of the latter, will never, so long as they remain in those cities, become competent teachers of those who intend practising the profession in the South.

And again:

"But the alumni of the Atlantic schools, as well as those of Kentucky and Ohio, regardless of the great fundamental facts that the pathological phenomena and therapeutical indications of the maladies of the South differ widely from those that are observed in such as occur independently of intense heat and a malarious atmosphere, and believing they have been taught correctly, without hesitation or remorse, subject the southern constitution to rules of treatment that are no less absurd in principle, than they are frightfully fatal in practice. We feel authorized in asserting, as the result of the multiplied experience and observation of all ages in low latitudes, that the liver is the great emporium of both health and disease in hot climates. In all its pathological and therapeutical relations it is an organ of paramount importance to the practitioner, for it is, as we have said, directly or indirectly concerned in most of the modes of morbid action which prevail in the South. A thorough acquaintance with the physiology, pathology, and therapeutics of the great organ, so far as understood, is therefore entirely indispensable to the successful treatment of Southern maladies."

And he observes subsequently and characteristically:

"The liver, whatever may be said by those, who, in reality, know nothing on the subject, but who, from motives perfectly intelligible, may be disposed to set aside or obscure the perception of the truth, is as much of a pathological autocrat in the South, as the lungs are in Philadelphia or Boston—in Louisville, Cincinnati or Lexington; and the other organs of the body are as completely under the presidency of the former in the South, as they are under that of the latter at the North."

All this, however, is mere twaddle, conveyed, it is true, in a sort of professional language, but not the less twaddle. It is the view which led calomel to be considered in the West, South, and South-west as the "Samson article of the Materia Medica," a Samson whose strength, however, is now gone from it; and this result brought about, we believe, in part, by the teaching of certain northern professors; but assuredly it is not the

view under which the sulphate of quinia is now regarded as the southern "Samson!" And can we, in charity, believe, that the Editor has forgotten that one of the most powerful advocates for the *febrifuge* virtues of this valuable agent is Professor Mitchell, of Lexington,—a teacher in one of the very schools, which, according to him, "are, no matter what ingenious sophistry may be employed to prove the contrary, necessarily disqualified to impart such information as will prepare their Alumni to encounter with success the mortal endemics that annually desolate those regions."

And, then, to prove, that of "the practice so common and firmly established in the South-west of arresting, or jugulating, as the French term it, remittent fever," the teachers and writers of the Atlantic States and of the West are "entirely ignorant," the Editor quotes an article by Dr. Ford of Georgia, published in the Georgia Medical Journal, in which that gentleman refers to different "Practices of Physic" published in the United States; but to do their authors justice—one of them at least—it would have been but proper to refer to the latest edition, and to a part in which the quinia treatment *is* referred to. It is too much, however, to expect that authors—even so *distinguished* as he of the "Chronothermal System," whom we find the Editor citing as *authority* in more than one part of his "discourse"—can keep up with sudden *pirouettes* in practice, and a more signal one certainly never occurred than in the transition from the calomel to the quinia management of southern fevers. Some of the works cited were published years ago, and when the plans of treatment were by no means as developed and as general as they are at present.

And, what a gross and unfounded libel we have in the following assertion!

"The statistical results of Dance's experience, or rather experiments, as embodied in his *Treatise on Fevers*, are a melancholy comment on the curative efficacy of French medicine, of which North-eastern practice is almost a literal transcript, for medical expectation, which Asclepiades properly called a meditation on death, constitutes the sum and substance of the former, is the common and current practice of the latter. p. 21.

It appears, however, that epidemics differ as much as "sec

tional" diseases; and therefore, we presume, we must have a special school for each epidemic!

"No physician has ever witnessed two epidemics of precisely the same character, that would yield to precisely the same treatment, or that would submit to the management followed with success in sporadic cases. There is a tendency to death in a particular way in each epidemic, and this the physician must discover, and if possible resist." p. 23.

And as if to "outherod Herod," we have the following assertion to which we shall not attach an epithet that any one at all acquainted with facts could readily supply.

"The inability of northern physicians, as well as those who reside in temperate latitudes, to treat successfully the maladies of the south-west, is conclusively proved by the enormous comparative mortality which is observed amongst those who, after having resided for months, in succession, in a malarious region, migrate to cold latitudes and subsequently sicken. From what we have actually observed" [in all the northern or middle states of the Union, we presume!] "we do not hesitate to affirm that it is almost equivalent to a sentence of death for south-western men to sicken of any acute disease, and especially of fever, in any of the northern or middle states of this Union."

Quis credat? Non ego! Yet the editor says it is so: "and sure he is an honorable man"!

Again:

"It has been alleged in this discourse that a great degree of scepticism in relation to the curative powers of therapeutical agents prevails amongst the dignitaries of the profession at the north, and we may say from personal intercourse with medical men of the highest respectability, and without injustice to them, that it exists to almost an equal extent in the larger cities of the west. Nothing of this sort is observed at the south-west."

All which is, of course, intended to show the superiority in *practical* knowledge of the south-western physicians.

The Editor now no longer pipes: he actually "bursts the bag"!

"In the south-west, neither the homœopathist nor the anatomo-pathologist will find countenance or encouragement. Disease is much too violent and malignant, and the efficacy of active and energetic treatment has been too often witnessed, is too well understood, and is too justly appreciated for either of them to be able to take root or to flourish. This is impossible, unless the homœopathist practises secretly what he has not courage or

honesty enough openly to avow, and this it is believed he does in all latitudes; or the anatomo-pathologist abandons the anatomical basis of treatment, and endeavours to relieve human suffering by studying and analyzing symptoms, and observing the effects of remedial agents. Since, therefore, the public in the north-eastern portions of the United States has been reduced to the desperate necessity of selecting between homœopathy and medical expectation, and as, from a full trial of both, it has been constrained to decide in favour of the former, it must appear to every intelligent and reflecting individual, at all acquainted with the complaints that result from malaria or intense heat" [neither of which is known, of course, in the north!] "the most preposterous of all absurd ideas, to send young men to the north-east or west, in order to prepare them for the practical duties of the profession in the south-west." p. 36.

We have before adverted to the fact, that the editor was a strenuous advocate, at one time, for the appointment of a north-eastern teacher to the chair of *Practice* of Medicine in the Transylvania Medical School. It now appears that such professors, and all western professors, are not only absolutely unfit, but must forever remain unfit for any such office in the south-western schools. Speaking more especially of Louisville, Cincinnati, and Lexington, he says:—

"In neither of them can a teacher be found by whom the pathological and therapeutical principles, on which the treatment of south-western maladies is regulated, are taught. This every sensible man must regard as a great defect in the organization of the faculties of these institutions, for at least one-half their alumni are destined to find homes and to seek their fortunes in the lower latitudes of the Union. Nor is this all, or the most mortifying or discouraging part of the truth on this subject. Whenever an occasion has arisen which put it in their power to reflect honor and distinction by promotion to the dignity of a professorship, they have almost invariably preferred north-eastern men, who know nothing of western, and especially of south-western maladies. That such persons are unfit for the functions they are expected to perform, we have already shown; that they will always remain so we assert from personal observation, as we know it to be impossible to divorce the confirmed and committed anatomo-pathologist from his 'great pathologica and therapeutical principles.'" p. 37.

And moreover:

"The reasons why they" [south-western physicians] "have not been permitted to take a more distinguished part in the teaching

of medicine in the United States, are obvious and intelligible. They observe and reflect more but write less than the physicians of the large cities of this Union; because what they do write" [the editor for example!] "is for the instruction of the profession, and not to sustain some 'great pathological principle of universal application;' because they aim to become practically useful as practitioners, and, if need be, teachers, and not to win conspicuous stations by becoming voluminous compilers of the results of other men's experience; because they have less book but more clinical knowledge; and finally, because the trade of criticism is exercised by north-eastern men almost exclusively. The result is, north-eastern books and north-eastern men are praised with little reference to their intrinsic merits, while south-western books and south-western men are overlooked and neglected or condemned." (?) p. 38.

In no way can this altogether supposititious evil—a creation of the author's own prolific brain—fearfully prolific in such conceits—be successfully rectified, he thinks, except "through their own schools and journals of medicine—through the instrumentality of which the ablest of themselves" [iterum ego!] "are the teachers, and in publications for which the most industrious, observing and talented of them are the writers." p. 39.

But the profession of the south-west require no such absurd vindication. We can affirm, most positively, that the kindest and most liberal sentiments are entertained towards them in this portion of the Union: it would be ridiculous to suppose that it could be otherwise; but if any thing were calculated to break in upon this most desirable harmony of feeling, it would be such loose, gratuitous, and indiscreet statements as those we have just quoted. We do not believe that they will have such an unfortunate effect upon a solitary 'north-eastern' individual, but we will not say what estimate they may cause to be put upon the head and heart of him from whom they emanated. In our opinion they certainly are not creditable to either the one or the other. It is idle, too, for the editor to refer to the difference which he fancies to exist between the physicians of the north-eastern cities, and those of the south-west, in the former writing more, but thinking less than the latter. He himself is, perhaps, the most voluminous medical pamphleteer that the whole Union could furnish; and as for the amount of thought—well directed

and useful thought—contained in his pamphlets, all we shall say is, that the extracts we have given are amongst the *most favorable* specimens of his various polemical sheets, and fragments of sheets, which have been inflicted upon us. Of the gross illiberality that pervades the "Discourse," almost every page furnishes one or more examples, and where the object is to vent illiberal feeling, the language certainly savours, at times, too strongly of hyperbole. Thus, in speaking of the school, once highest in his favour—the one at Lexington—the south-western neophyte of one year's standing remarks:

"Lexington, which does not contain over eight thousand inhabitants, had for many the second, and for some years the third medical institution in the United States, although, at present, from causes to which it is now useless to advert, it has sunk so low as to be, we believe, the tenth or twelfth of the Union.

Where is the authority for this? *We* know of none.

It will be observed, that we have entered into no vindication of the north-eastern schools against the attacks made upon them by the editor of the *South-western Medical Advocate*. It would be idle to answer that which requires no answer, and the object of which must be apparent to the most careless reader. We have been desirous only of shewing up the Journal and the Editor by his own shewing; to announce, in sporting language, "the name of the horse and the colour of the rider;" and the result must have been a desire on the part of every friend of the whole profession, and especially of south-western medicine, that this South-western medical *Detractor*, rather than South-western medical *Advocate*, should quit the course—that it should cease where it has begun, and that the prolific author should follow the example set him by Cid Hamet Benengeli, in the last chapter of Don Quixotte, and promise repose to his pen. Especially would we advise him—although we are satisfied that the office of adviser is, at best, but a thankless one, and that the advice will be wholly thrown away—to be a shining specimen, not of the *Acarus Crossii*, which has so much puzzled the naturalist, and whose precise position it has been so difficult to define, but of the south-western genus of physicians, as he describes them, "who observe and reflect more, but write less than the phy-

sicians of the large cities of this Union, because what they write is for the instruction of the profession." Let him but succeed in this, and we shall be the first to herald and applaud the happy change.

A Treatise on the Practice of Medicine. By GEORGE B. WOOD, M. D., Professor of Materia Medica and Pharmacy in the University of Pennsylvania; one of the Physicians to the Pennsylvania Hospital; one of the Authors of the Dispensatory of the United States of America, etc., etc. 2 vols. 8vo. Grigg, Elliott & Co. Philadelphia, 1847.

Formerly, the appearance of a general Treatise on the Practice of Medicine was the event of an age; of late years, it is scarcely less than an annual occurrence. So numerous are they on our shelves, and some of them so complete, that one is at a loss to conceive of the occasion for a new one. Until lapse of time and the advancement of our science have added new facts, or shed more light upon what is already known, it would seem difficult for a writer to find materials out of which to construct such a work, without injustice to his readers, and to those from whom he derives whatever is valuable in his production.

Dr. Wood experienced the truth of these observations, and accordingly, in his preface we find the following apology.

"In adding another to the many valuable Treatises on the Practice of Medicine, the author may be reasonably expected to show, upon what grounds he has ventured to advance a new claim to the public attention, already so fully occupied. He has no other excuse to offer than this; that he has written in obedience to impulses which he could not well resist. Having been engaged, for nearly thirty years, in public and private practice, and, during that time, devoted an almost exclusive attention to the study of diseases and their remedies, he has accumulated facts, and formed opinions, which have been long soliciting expression, with an urgency to which he has at length yielded, though unfeignedly distrustful of their sufficient value."

What are the facts which have been accumulated, and whether derived from authors who have preceded him, or exclusively of his own discovering, and in relation to what subjects, is not stated in the preface, and consequently it is only after tracing them out by searching through the work, that we are enabled to ap-

preciate them. From the connection in which the subject is presented, we infer that the facts alluded to are original with the author, although not so clearly stated, and if so, it is to be regretted, considering how few are the discoveries of this kind which it is the fortune of a single observer to bring to light, that time and further investigations confirm,—it is to be regretted, we say, that these, which ought to be the gems of the work, were not more specifically pointed out: it would at least have saved the reader the task of wading through two ponderous volumes to find them. The "Opinions" which the author, in the course of "nearly thirty years, in public and private practice," has formed, are neither so sparse nor so difficult to discover, and, after all, constitute the most interesting as well as original part of the work. Without dogmatism of expression, they are yet put forth on most occasions in a way that leaves little room to suppose that any doubts are felt of their correctness. When reference is made to the opinions of others, it is in a courteous spirit, and rarely for the purpose of criticism. On other occasions, dissent and commendation are equally withheld.

Dr. Wood has divided his treatise into *two Parts*, each divided again into *sections*, *sub-sections*, and *articles*.

Part I. is devoted to General Pathology and Therapeutics, and consists of four chapters; which treat respectively of the "constituent forms of disease, as disease of the fluids and disease of the solids; causes of disease, or etiology; symptomatology, or semeiology; course, duration, and termination of disease; diagnosis; prognosis; general therapeutics, embracing *general indications* and general *therapeutic processes*.

Part II. treats of special pathology and therapeutics, and is divided into *three classes*, under which are arranged *general diseases*, *constitutional diseases* and *local diseases*. Under the head of *general diseases* we have fevers—including plague, variola, vaccina, varicella, rubeola, scarlatina, and erysipelas; the class of *constitutional diseases* includes only *rheumatism* and *gout*; whilst that of *local diseases*, amongst a vast catalogue, embraces *insanity* and *delirium tremens*—*epilepsy* and *chorea*, *hydrophobia*, *hysteria*, etc.

In the yet unsettled state of pathology, all classification of diseases must be imperfect, and consequently arbitrary, but it

seems to us that this one does not represent the present state of our knowledge. Take, for example, the two last named diseases, and apply the author's own definition of the terms, and see how far they answer to the character of local diseases. "Hydrophobia is a peculiar disease, resulting from the entrance into the system of the poison of a rabid animal." It is not alledged that the local phenomena that are described, "such as aching, tingling, burning, coldness, numbness, or stiffness in the cicatrix" constitute the disease, any more than the pustule which follows the insertion of the virus of small pox or vaccine into the arm. In the former as in the latter instances, the disease is referred to "*the entrance into the system of the poison,*" and why in the one case it should be regarded as a *local* and in the other as a *constitutional* disease, it is difficult to conceive. Again: "Hysteria is a disease consisting in a morbid excitability of *the general nervous system,* [the italics are our own,] showing itself in occasional convulsive paroxysms, and diversified functional disorder." As already remarked, all classifications of diseases are necessarily to some extent arbitrary; an author may therefore devise or adopt that which may best accord with his own views, but it is not to be expected that he shall contradict himself—that the phenomena which constitute the disease, according to his own description, shall be *general,* whilst it is included in the catalogue of such as are regarded as *local.* It is not our purpose, however, to enter upon an extended criticism of the work, but, having mentioned its general contents, make such occasional comments as the nature of the subjects may suggest, and our restricted limits permit. In our "devious course" we shall doubtless find much to commend, and, perchance, something from which to dissent.

In his observations on general pathology, under the head of *Depression,* we find the following remarks, which are a fair specimen of the author's style and mode of reasoning:

"There are three conditions in which the system is below the ordinary standard of health, and which, though if slight and of brief duration, they would scarcely be accounted morbid, are decidedly so when considerable or protracted. These three conditions are often confounded under the name of debility, or asthenia, but are essentially distinct, and sometimes require different if not

opposite modes of treatment. It is, therefore, important to have clear conceptions of their nature, and to be able practically to distinguish them. The conditions alluded to are depression, debility, and diminished excitability. It must be borne in mind that action, the power to act, and the susceptibility to the influence of excitant agents, which is here denominated excitability, are different conditions or qualities of the system, and may each be reduced without a necessary reduction of the others. A morbid diminution of action is *depression*, a similar diminution of power is *debility*, and the term *diminished excitability* explains itself."

"These conditions," the author remarks, "may and often do co-exist;" but he thinks they are essentially distinct, and may exist separately. This position he explains as follows:

"That power may be diminished, without a diminution of excitability or of action, is no less true. It is notorious, that a debilitated system is often thrown into tumultuous disorder by causes which would produce no such effect in health. Thus, in an individual much reduced by an impoverished diet, or by depletion, how often do we observe a panting respiration, and an almost convulsive action of the heart, under a degree of bodily exertion which would have scarcely discomposed these functions, in the ordinary state of the system! How often, under similar circumstances, do the slightest causes produce great nervous disturbance, amounting in the female to violent hysteria! These results can be accounted for only by admitting an increased excitability, which enables the same amount of excitant influence to produce a greater amount of effect."

Dr. Wood may be regarded as a strenuous advocate of the modern doctrine of humoral pathology. He considers it "certain that, in some diseases, as in malignant fevers, for example, the blood does undergo great deterioration, either from the direct action of the poison introduced, or from derangement of the organs, and thus becomes wholly unfit to support the healthy actions, which are consequently greatly depressed."

We are glad to find the following sound views expressed on a subject too much misunderstood by many physicians, who seem to think that excitement is always to be overcome by means that reduce the strength of the system, and especially by blood-letting.

"But it must be borne in mind, that a mere loss of blood, or a mere diminution of its stimulant properties, without any positive noxious deteioration, though it may cause debility, does not necessarily diminish excitability. On the contrary, the organs feel more acutely the impression of other excitants, and are stimulated

into excessive action by causes which would not have this effect in health. I have before alluded to the tumultuous disorder produced under these circumstances, in the respiratory and circulatory systems, by moderate muscular exertion, and in the nervous system by slight causes of disturbance. Even without any apparent excitement, the heart very often acts with greatly increased frequency. This phenomenon, however, is susceptible of explanation. The nutrition, muscular contraction, digestion, and other functions constantly going on in the system, require a certain amount of blood for their support; and in order to insure the requisite supply, nature has established such a sympathy between the parts in which these functions are performed, and the heart, as to call the latter organ into increased action, when any deficiency is experienced." (page 62.)

Whatever may be thought of the explanation, the practical deduction is of very great importance in the treatment of disease. In an enfeebled condition of the system, to bleed, purge and starve, because the heart acts tumultuously, is literally to slay the patient; and yet, regardless of all the other indications, we have known extensive bleeding performed only a few hours before death, *because the heart was beating with unwonted force!* In such cases, it will always be found that instead of being curbed, the *frequency*, at least, of the heart's contractions will be increased, and the danger vastly augmented.

The author treats of *revulsion*, *derivation*, and *counter-irritation*, as one and the same thing—as if, in fact, these were convertible terms. Thus he remarks: "This [revulsion—derivation—counter-irritation] consists in the diversion of disease from one part of the system, by the production of inflammation, or irritation, in another part." (p. 216.) This is true of counter-irritation, but very effectual revulsion is often made by means which excite neither irritation nor inflammation. The various hygienic influences so successfully invoked in the treatment of many chronic diseases act by the production of healthy excitement of the various organs of the body, without that excitement rising to the degree of irritation.

After explaining the action of revulsive agents (or rather of counter-irritants) the reader is very properly cautioned against their employment in the active stage of inflammatory diseases.

"But," observes the author, "during the existence of high constitutional excitement, the revulsive agent is not able to unseat

the inflammation, and, if of itself irritant, as in the instances of rubefacients and blisters, may add to the existing excitement, by the sympathy of the system with the superficial inflammation they produce. But, when the revulsive impression is conjoined with copious depletion, as in the case of hydragogue cathartics, which produce a revulsion towards the whole lining membrane of the bowels, while they evacuate the contents of the blood vessels, it may be resorted to even in the greatest height of the inflammation. The copious secretion prevents the excitement of an irritation in the bowels, sufficient to bring the constitution into sympathy." (p. 217.)

We cannot assent to the correctness of the practice inculcated in this paragraph. Although hydragogue cathartics produce "copious depletion," it is only of the watery part of the blood, and not its richer and more stimulating portion; and beside, the action of several medicines of this class is sufficiently energetic to cause so great local excitement as to materially effect the general nervous and vascular systems. We think that Dr. Wood himself, on reflection, would hardly prescribe colocynth, scammony or gamboge in hepatitis, peritonitis, or pneumonia, "in the greatest height of the inflammation;" trusting to the copiousness of the secretions to counteract their general excitant influences.

We have noticed occasional instances like these in which we differ from the author in points of practice, and in which we think he differs from *himself*—for in the general soundness of his therapeutical principles we entirely concur. They are such as we have acted on for a third of a century, slightly modified, it may be, by the progress of our science. It is, however, in carrying into practice these principles, that we should have occasion to differ from the author, and on a closer examination of the work, it is not unlikely that these occasions would be multiplied. We perceive, for instance, the greatest confidence reposed in certain articles of the materia medica, to which we attach very little; such as the *citrate of potassa* in fevers of almost every type, but especially bilious fevers. The acetic and tartaric acids in combination with potassa, according to Dr. Wood, will not do—nor the citric acid with either of the carbonates of soda. "I feel very confident," he remarks, "that no practitioner who has ever been in the habit of using the effervescing draught, *properly pre-*

pared, (i. e. fresh lemon juice and carbonate of potassa, in the effervescing state) in the treatment of bilious fever, will be disposed to abandon it." We have no doubt that this is true, and that those who are "in the habit of using" any other article will not be disposed to abandon it. "Habit" is a strong law, that few venture to dispute. We acquire the "habit" of giving certain things in particular diseases, and, in self-limited diseases, as fevers often are, our patients generally get well, and of course the medicine, no matter how inert, gets the credit of the cure, and our "habit" is confirmed.

We do not object to the efferverscing draught in bilious fever. It is as simple and innoxious as any thing else, and if something must be done to keep the patient and the doctor quiet, it may as well be given, although we should much prefer a piece of ice or a little cold water: but we object to overweening confidence in any single article in all cases of disease wearing the same general character, and especially to the ascription of very active properties to such as are really inert under almost any circumstances.

Generally speaking, the pathological principles, as well as the therapeutical laws, set forth in this treatise, will be found in accordance with the present advanced state of our knowledge on these subjects. Usually, it is not the author's custom to doubt, even on points regarded by the generality of authors as doubtful. Thus, yellow fever is neither gastritis nor a form of bilious fever, nor miasmatic, but a *peculiar* fever.

"There can, I think, be no doubt, that yellow fever is an entirely peculiar and distinct disease. What are the precise pathological conditions essential to it are unknown. It is highly probable that the blood is prominently in fault, being deranged by the immediate action of the morbific cause."--(p. 308.)

Congestive, or, as the author calls it, *pernicious* fever, is a "form of miasmatic fever," in which the congested condition of the vessels of certain organs is merely a consequence of the disease, and "it is in the peculiar state of the innervation, that we are to look for the source at once of the symptoms and the danger."

Continued or Typhoid fever he denominates "*enteric fever*," and makes it, in its causes, symptoms and character, a distinct disease from *typhus*, thus cutting the knotty question of identity in the most summary manner, although M. M. Louis, Gaultier

de Claubry and others, believe their typhoid and typhus to be absolutely identical: and one of the most recent numbers of the Archives Generale des Mèdicine (for May, 1847,) states that typhoid fever is one of the most irritating questions to the Academy de Medicine, and one on which the opinions of its members are most divided and most in contradiction. Its identity with remittent or bilious fever is also denied, notwithstanding the author admits that "cases having all the essential characters of enteric fever occasionally end in intermittent; and bilious fevers, or affections which cannot be distinguished from them, sometimes show signs of enteric fever during their progress."

The "present work claims to be something more than a mere compilation." The author does not, however, pretend that the facts or opinions advanced are generally original with himself: but that "these materials have for the most part been maturely considered, have been submitted to the closest scrutiny of which he was capable, and have been re-arranged in accordance with his own best judgment." This is certainly the true course for a writer to pursue who desires to prepare a comprehensive treatise which shall do full justice to the subject without undue prolixity. To do justice, however, at the same time, to antecedent and cotemporary writers and observers, by awarding to each the credit of what properly belongs to him, when thus "re-arranging" these materials to suit an author's own judgment, is not so easy a matter; and we regret to find that in the work before us the effort does not seem to have been always made, where early impressions or personal predilections were not strong enough to incite to the task. We think there are many instances overlooked where the writings of American physicians might have been profitably cited, whilst the published opinions of some of the most eminent of the profession, whose names are rarely if at all alluded to in the course of the work, would have given additional interest to its pages.

We have thus cursorily noticed some of the points on which we do not entirely accord with the author in the work before us. Candor would not allow us to do less. We are fully sensible of the difficulty there is in speaking of the productions of a writer whom we have known and esteemed through

many long years of uninterrupted friendship, but we have endeavoured to do so with the impartiality demanded by truth and science, and it is in this spirit that we pronounce the treatise of Dr. Wood, notwithstanding the objections we have made, to be one of the most valuable of the works that have come from the American press, and exceedingly creditable to the zeal and abilities of the accomplished author.

Elements of Chemistry, including the history of the imponderables, and the Inorganic Chemistry of the late Edward Turner, M. D., F. R. S. L. and E., Seventh Edition, and the Outlines of Organic Chemistry, by William Gregory, M. D., &c., Professor of Chemistry, University of Edinburg. With additions, by James B. Rogers, M. D., Professor of General Chemistry, Franklin Institute, and Lecturer on Medical Chemistry, &c., and Robert E. Rogers, M. D., &c., Professor of Chemistry and Materia Medica, University of Virginia, &c., 8vo. pp. 848. Thomas, Cowperthwaite & Co., Philadelphia, 1846.

Dr. Turner's elements of Chemistry has for many years sustained the highest character, both in Europe and America, as a full and accurate exposition of the principles of the science. It has already passed through several editions in this country, under the careful supervision of Professor Bache, to whom the Author, in the European edition, published shortly before his death, acknowledged himself indebted for the correction of numerous errors and the addition of much useful matter. We are pleased to find that the editors of the present edition have adopted these corrections of Dr. Bache, to whose labours they refer in the following courteous and just language: "In labouring to correct the numerous typographical errors of the London work, the editors have been greatly assisted by the American re-prints of the former edition of Turner's Elements, the great accuracy of which reflects so much credit on the industry and attaimnents of their accomplished editor."

In noticing a work which has passed through so many editions, neither analysis, criticism, nor commendation, is required or will

be expected. All that seems necessary is to inform the reader of the changes and additions contained in the edition before us. These are well set forth in the following extract from the preface.

"The present blended republication embraces the whole of the Imponderables and Inorganic Chemistry of Dr. Turner's well known Elements, together with the Organic Chemistry of Professor Gregory's Outlines, and the separate treatises on Mineral and Organic Analysis by Mr. Parnell and Professor Liebig. In the first plan of the work it was proposed simply to re-edit the seventh edition of Turner's Elements, making such additions and emendations as the progress of the science required, and at the same time re-moulding the part devoted to Organic Chemistry in an abridged and systematic shape. The opportune appearance of Professor Gregory's Outlines greatly aided the accomplishment of this plan by furnishing ready prepared, just such a condensed and methodistical treatise on Organic Chemistry as was originally proposed, and the publishers availing themselves of so valuable an aid, at once determined upon substituting the second parts of the outlines in place of the intended abridgement of the Organic Chemistry of Dr. Turner's work. Of the propriety and utility of this change, the editors believe no doubt will be entertained, when it is remembered that the outlines are from the same pen that drew up a large part of the Organic Chemistry in the seventh edition of Turner; that they are in reality compiled of the same materials, with the addition of some more recent results, all very skilfully recast, and that they conform in notation and general method with the inorganic portion of Dr. Turner's work.

In the department of Analytical Chemistry, the closing division of the work, the editors conceive that the present publication will be admitted to present a very important improvement. This portion of the elements though enriched in the seventh edition by an able sketch of Inorganic Analysis, written expressly for it by Mr. Parnell, contains no account of the methods of *Organic Analysis*, a subject of peculiar and perhaps leading interest in its connection with modern chemical research. To remedy this defect the editors have gladly introduced Liebig's outline of the processes for analysing organic bodies, a treatise of the highest authority with all who are engaged in this department of science, and one happily adapted to the wants of the practical student."

The union of these several treatises constitutes the most comprehensive work, as to facts and principles, and the processes and applications of the science of Chemistry, to be found in the

English language. The task of the editors, it appears to us, has been well and ably performed, and we can most conscientiously recommend the present addition of Turner's Chemistry as the best adapted for the thorough study of the science of any with which we are acquainted.

Braithwaite's Retrospect of Practical Medicine and Surgery. No. XV., January to July, 1847.

We have received both the English and American editions of this useful publication. The "Uniform American Edition," which is a reprint of the English, is published by Daniel Adee, of New York, and the number before us contains 371 pages, octavo, of well selected matter. We very much wish that the American publisher would emulate the English in the mechanical execution of the work. The great efforts to sell American reprints at a very small price, which causes them to be driven through the press without being supervised by a qualified proof reader, and sent forth imperfectly printed and badly got up in all other respects, detracts very materially from their value. The constant misprints, especially in statistical tables, destroys all confidence, and, in fact, renders them quite valueless. This cheap publishing may do for novels and other light reading, when slight alterations or omissions can be discovered by the context, but in works of science it is really a serious matter. Besides, books which are to go into a physician's library for future reading and reference, should be constituted of permanent materials, and we have no doubt that publishers would find it to their advantage to bring out their medical publications in a style more befitting their contents.

THE MEDICAL EXAMINER.

PHILADELPHIA, SEPTEMBER, 1847.

NATIONAL MEDICAL CONVENTION.

The Report of the Committee on preliminary education will be found on another page, to which we invite attention. The Committee justly observe that, "entirely destitute of the means of legal compulsion, and depending for success, as the Convention must, solely upon the force of professional and public opinion, nothing could be hoped from a standard above the circumstances of the country and the times," &c.

This is undoubtedly a correct view of the case; at the same time, when about to erect a standard, one a little more elevated might as well perhaps have been indicated, as where an object is distinctly placed before the eye as a *sufficient* qualification, few will transcend, while many will fall short of the mark. Nevertheless, it is greatly to be hoped that private preceptors, on whom "*the chief responsibility* rests," as observed by the Committee, will look to the recommendation. While they encourage young men to enter their offices who are unprepared for the proper prosecution of the study of medicine, with what reason can it be expected that the medical colleges will spurn them? To take a young man's fee and keep him two or three years in his preceptor's office, and then, when he applies to enter college, say to him, "go back to your primer, sir, you are not prepared for the study of medicine," would be rank injustice. It is the duty of every preceptor to inquire into the qualifications of a student, natural and acquired, before receiving him into his office, and honestly inform him of what is requisite. Let this be done, and the friends of reform will find that little more will remain to contend for. One who is possessed of a good education has greater means and higher motives to spur him on in his pursuits, and will be likely to select the best schools and emulate the highest examples.

THE CONCOURS IN FRANCE.

Among other reforms recently advocated, the French practice of concouring for professorships has of late been highly commended by

some of our brother journalists. In fact, we at one time advocated it ourselves, but afterward came to learn that its practical operation was not quite equal to its promises in theory. We understood from different sources, that instead of affording a true test, positive and relative, of the fitness of a candidate, it was liable to great abuses, and often led to deception: it was discovered, indeed, that many things were necessary fully to qualify a man to occupy a professor's chair beside those elicited by the concour. Our brethren of the Buffalo Medical Journal and of the St. Louis Medical and Surgical Journal, with many others, will be surprised to read the following, which we extract from the London Medical Gazette of the 16th of July.

"*Abolition of the Concours in France.*—The Chamber of Peers has come to a vote by which the system of election by Concours in France is abolished. Some of the noisy advocates of this electioneering practice are about to present a protest to the Chamber of Deputies against this vote, and to require a restoration of their favorite panacea for bringing out professional talent! But the feeling of the most eminent and experienced men in the profession is decidedly against the re-establishment of this system."

The introduction of this system into France some years since was hailed as the greatest improvement—as closing the door for ever upon favouriteism, and opening the portals wide to genius and learning! And now it is discovered that common sense and business qualifications are quite as necessary as genius and great learning, and that these are not always combined in the same individual. *Change*, in fact, has not turned out to be *improvement*. Not only the professors of the colleges, but likewise the physicians and surgeons of the hospitals, in France, were chosen by concour, and consequently the strife was going on all the time. "Thus," says the Gazette, "last year there were two vacancies for the situation of surgeons to the hospitals of Paris; *there were thirty-two candidates, and the concours lasted five months!*" Nothing could demonstrate the impracticability of such a system better than this fact.

YELLOW FEVER.

Yellow Fever is prevailing in New Orleans more extensively than for a number of years past. On the 19th of last month, the interments of those who died of this disease amounted to seventy-seven, which, considering that a very large number of the inhabitants are always absent during the summer months, and many more fly on the

first announcement of the fever, must be regarded as a very large proportion to the number of inhabitants.

At Vera Cruz, also, the vomito, or yellow fever, continues to prevail, but attended with less mortality, we should infer from what we see in the newspapers, than at New Orleans.

SHIP FEVER.

Typhus, or Ship Fever, continues to prevail to some extent among the emigrants to our principal ports, more especially those from Ireland. The greater abundance of food, however, will soon effect a change—in fact, has already materially lessened the number of cases arriving in this country as well as in Europe. Whenever the disease has appeared among others than emigrants in this country, it has been only such as were particularly exposed to it, as the inmates of the houses of the sick, and their attendants, including nurses and physicians. Several valuable lives among the latter have been lost, especially in New York and Canada.

RECORD OF MEDICAL SCIENCE.

Report of the Committee on Preliminary Education, appointed under the 5th Resolution adopted by the National Medical Convention of May, 1846.—The duty entrusted to the Committee was "To report on the standard of acquirements which should be exacted of young men, before being received as students of medicine."

Before attempting to perform this duty, the Committee thought it desirable to ascertain, by inquiries addressed to the medical schools and distinguished practitioners of medicine throughout the Union, the sentiments and practice of the profession on this interesting subject. They, accordingly, prepared a circular, the object of which was to ascertain the views of the various Medical Schools in regard to the standard of preliminary education which it is proposed to exact of young men about to commence the study of medicine; and also to invite any suggestions they might think proper to make. Copies of this circular were sent to the (then) thirty-six Medical Schools of the United States, and official replies have been received from six of this number; namely, the Medical Department of the University of Pennsylvania, the College of Physicians and Surgeons in the City of New York, the Medical Institution of Yale College, Ohio Medical College, Albany Medical College, and the Medical Faculty of Dartmouth College. These institutions are desirous of having a standard

established, and the Committee do not doubt that they, as well as others, will cheerfully co-operate with the Convention and the profession in this desirable reform.

Another circular was addressed to distinguished medical practitioners residing in all the States and Territories of the Union, soliciting replies to the following four questions.

1. Is it the custom of your State or neighborhood to require of young men, who desire to study medicine, any particular amount of preliminary education?

2. If so, what are the details of your standard?

3. By what authority, whether of a State Medical Society, local Association, or common consent, is this standard established?

4. What may be considered the general sentiment of the profession in your vicinity, in regard to the establishment of such a standard as is contemplated in the 5th resolution of the National Medical Convention of May, 1846?

The Committee have been favoured with very full and explicit answers to this circular from thirty-nine gentlemen, representing twenty-one States of the Union. The replies which have been received to the first three questions, establish the fact, not only that there is no uniform standard of preparatory education exacted of medical students throughout the United States, but that there is no general rule adopted in any particular state or district, which has been authorized or recommended by Medical Societies or other official bodies, or established by common consent and custom. The whole subject is left to private preceptors, many of whom recommend, and a few exact, an elevated standard, while others leave it to the discretion of the students themselves, or their parents. But all the letters of the practitioners indicate, without an exception, the cheering fact, that the profession is alive to the want of a standard, is desirous that one should be established by the Convention, and is willing to sustain it.

The fourth question was designed to elicit the general sentiment of the profession in regard to the nature and extent of the preliminary education which should be required of medical students. On this subject, the correspondence shows a considerable diversity of opinion; and the standard of different writers varies from a "common school" education up to the highest collegiate attainments. Some advocate a different scale in different sections of the country, while a majority is in favour of having the standard uniform throughout the Union. And, notwithstanding the individual differences of ideas, there is a sufficient general concurrence in the views of the writers to enable the Committee to recommend a scale which is chiefly based upon their united suggestions.

Your Committee are aware of the difficulties the Convention would discover in fixing the standard of preliminary education for medical students as high as would be desirable. Entirely destitute of the means of legal compulsion, and depending for success, as the Convention must, solely upon the force of professional and pubiic

opinion, nothing could be hoped from a standard above the circumstances of the country and the times. The existing evil can be reached only by the concurrent action of private medical preceptors, and the medical schools of the country. The chief responsibility rests with the preceptors; and to them the Convention should make its strongest appeal; but at the same time they should be encouraged and sustained by the co-operation of the schools, without which, indeed, the efforts of preceptors could be but partially successful.

The object to which the Committee has directed its labours, it is believed, can be best effected by the Convention in the following way:—

1*st.* By establishing a uniform standard of preliminary education for medical students, which shall be of a moderate character—in the first instance, too low, rather than too high—and yet of such extent as will insure both the knowledge and the mental discipline necessary to those who would enter a profession full of labour and responsibility, without excluding meritorious young men of limited means and opportunities.

2*d.* By earnestly recommending every medical preceptor to exact this standard of every young man, before admitting him into his office; and having exacted it, to grant him a written certificate to that effect, specifying also the period of his admission into the preceptor's office, as a proper warrant and credential for the student, when about entering a medical college.

3*d.* By requesting all the medical colleges of the country to require such a certificate of every student applying for matriculation; and, in publishing their annual list of graduates, to accompany the name of the graduate with the name and residence of his preceptor, the name of the latter being clearly and distinctly presented as certifying to the qualification of preliminary education.

These ideas the Committee have put into the form of distinct resolutions, which they append to their report, submitting both for the consideration of the Convention, and, if it think proper, its adoption.

1*st.* *Resolved*, That this Convention earnestly recommends to members of the medical profession throughout the United States, to satisfy themselves, either by personal inquiry or written certificate of competent persons, before receiving young men into their offices as students, that they are of good moral character, and that they have acquired a good English education, a knowledge of Natural Philosophy and the Elementary Mathematieal Sciences, including Geometry and Algebra; and such an acquaintance, at least, with the Latin and Greek languages, as will enable them to appreciate the technical language of medicine, and read and write prescriptions.

2*d.* *Resolved*, That this Convention also recommends to the members of the Medical profession of the United States, when they have satisfied themselves that a young man possesses the qualifications specified in the preceding resolution, to give him a written certificate, stating that fact, and recording also the date of his admission as a medical student, to be carried with him as a warrant for his reception

into the medical college in which he may intend to pursue his studies.

3*d*. *Resolved*, That all the medical colleges in the United States be, and they are hereby recommended and requested to require such a certificate of every student of medicine applying for matriculation; and when publishing their annual list of graduates, to accompany the name of the graduate with the name and residence of his preceptor, the name of the latter being clearly and distinctly presented as certifying to the qualification of preliminary education.

Signed by JAMES COUPER,
L. P. BUSH,
JAMES W. THOMSON,
ALDEN MARCH,
WASHINGTON L. ATLEE,
D. T. BRAINARD,
} *Committee.*

Peoria District Medical Society.—Pursuant to public notice a number of the regularly qualified practitioners of medicine of Peoria, Tazewell, McLean, Woodford, Putnam, Bureau, Stark, Knox, and Fulton counties, in the state of Illinois, met at the court house in the city of Peoria, on Tuesday the 13th of July, and organized the "Peoria District Medical Society."

The following persons were admitted as members:—Rudolphus Rouse, Peoria; A. G. Henry, Pekin; Francis A. McNiel, Peoria; L. A Hanaford, Trivoli; Edward Dickinson, Peoria; Joseph C. Frye, Peoria; Elwood Andrew, Peoria; Thomas J. Moore, Trivoli; S. Christy, Farmington; G. H. Hickman, Farmington; O. N. Williams, Farmington; Wm. Cromwell, Pekin; M. B. Van Petten, Trivoli; H. H. Sexton, Galesburgh; E. M. Colbourne, Bloomington; Uri P. Golliday, Kickapoo; Alvah Leonard, Kickapoo; John L. Huff, Maquon; Charles Cutter, Princeville; T. P. Rogers, Washington; John Riley, Henderson; Alanson Stockwell, Tremont; E. V. Garfield Toulon; Jerome B. Tenney, Tremont; John Murphey, Peoria; G. P. Wood, Washington; Robt. B. M. Wilson, Peoria; John B. McDowell, Lewiston; Thomas Hall, Toulon; A. H. Lace, Bloomington; N. S. Tucker, Peoria.

The following officers were elected for the ensuing year:

President.—F. A. McNiel, M. D.

Vice Presidents.—A. G. Henry, M. D., J. C. Frye, M. D.

Recording Secretary.—E. Andrew, M. D.

Corresponding Secretary.—Jno. Murphy, M. D.

Treasurer.—E. Dickinson, M. D.

Censors.—Drs. R. Rouse, E. M. Colbourne, T. P. Rogers, H. H. Sexton and Thomas Hall.

The next meeting of the society will be held at the court house, in the city of Peoria, on the first Tuesday of November next, to which all qualified Physicians, desirous of becoming members, are invited

to attend. The delegates to the American Medical Association, will be appointed at the November meeting.

An address will be delivered by the President—one or more lectures, by persons appointed for the purpose—after which, the nature, pathology, and treatment of congestive fever, will be discussed by the members of the society.

E. Andrew, Secretary.

Account of a Physical Sign of Pneumonia of the Apex of the Lungs. By Wm. M. Boling, M. D., of Montgomery, Ala.—My experience, so far as it extends, is confirmatory of the opinion that pneumonia, commencing at the apex of the lung, is, in proportion to the number of cases, the most frequently fatal form of the disease. I have met with about six cases of this affection, at least have recognized, or identified about that number. They all proved fatal. I will notice three of them :—In one, the subject of which was a powerful and robust Irishman, 30 years old, "fond of a dram," but not decidedly intemperate, and previously in good health,—the disease supervened on an attack of acute bronchitis, about the fifth day, and proved fatal on the fourteenth day, counting from the first of his illness, In the second case, the patient was a rather delicate negro woman about 28 years old,—the attack commenced during a slight indisposition of a catarrhal character, and proved fatal on the thirteenth day. The other patient was a strong and robust negro woman, about 22 years old, previously in good health, and in her case the termination was on the ninth day.

The general symptoms and march of the disease, in these, did not differ in any material point, from those in the more common form of pneumonia, except in the point of commencement, and in this perhaps—that the morbid alteration had proceeded to a less extent, at the time of death, than is commonly the case in the latter ; that is, death supervened from a less extensive local disease. In the other cases, the lung ran most rapidly into a state of hepatization, the solidification not being preceded by the crepitant bronchus, but by a total absence of the respiratory murmur, while the chest over the affected part remained still resonant on percussion.

My object, however, in the present remarks, is simply to speak of a physical sign that was present, in each of the three cases detailed, which I presume also to be present in others of the same character, the observance of which may probably lead to a correct diagnosis at an earlier period, in some instances, than it would otherwise be made. This is a fine mucous or crepitant rhonchus, seemingly seated in the larynx, loud enough to be heard distinctly at the distance of two or three feet from the patient, and so *persistent*, that it is not removable, or but momentarily, by any effort to expectorate which the patient may make, while at the same time there are present none of the signs of bronchitis or laryngitis. Though it is exceedingly annoying to the observer to hear it, because it impresses him with the belief that it is distressing to the patient, and he looks with a feeling rather

of impatience for an attempt, by an effort to expectorate, for its removal; the patient seems perfectly indifferent to its presence, which would not be the case were it really produced by the presence of a small quantity of tenacious mucus in the larynx itself. The sound, then, is only seemingly produced in the larynx, for on applying the stethoscope immediately under or just above the clavicles, it will be discovered to proceed from the apex of one or the other lung, which will be found the seat of inflammatory action. It would seem that the sound there produced in the pulmonary vesicles, must be conveyed by the larger bronchial ramifications, numerous and superficial at this point, to the larynx, where, in consequence of the thinness of the tube, or rather the thinness of its covering, and its proximity to the surface, the deceptive impression of its production in this organ, from the presence of a small quantity of viscid mucus, is created.

It is the indifference of the patient to the presence of the sound, but still more especially its *persistence*, which constitutes its peculiar and distinctive feature, and upon which its value as an evidence of pneumonia commencing in the apex of the lung depends. In other affections of the lungs and air passages, more especially in bronchitis, we may have a somewhat similar sound produced in the larynx itself, by the play of the passing air through a small quantity of viscid mucus there collected; but under such circumstances, it is removable by coughing, or an effort to expectorate, and once removed may not return again, or only after a considerable interval, when a fresh collection of mucus has taken place. The patient, too, does not manifest the same indifference in regard to its presence, but the mucus producing it soon excites an effort for its removal.

As pneumonic inflammation, in the greater number of cases, commences at the base of the lung, the inexperienced stethoscopist, on observing the general symptoms of pneumonia present, may neglect to apply his instrument over the apex of the organ in attempting to discover the location and extent of the disease, and failing to detect any physical evidences of morbid action near the base, might at once attribute the symptoms present to inflammation, somewhat circumscribed, of the central portion of the pulmonary texture; too limited in extent, and too remote from the surface, to give rise to the peculiar physical phenomena. To be sure, were he to examine the entire chest, the disease would be detected. The recollection of the sign which I have named, leads at once to its locality.

It is altogether probable, that in a number of instances of this kind, the exact seat of morbid action has escaped my own observation, as the peculiar sign which I have spoken of, I considered indicative of the most extreme danger, long before I discovered its connection with inflammation, commencing at the apex of the lung.—*American Jour. of Med. Sci.*

Case of Ligature of Common Carotid, for removal of Parotid Gland.—By A. B. Shipman, M. D., Professor of Surgery in Indiana Medical College.—(Communicated by Dr. Norris.)—Mrs. ——, ætat.

70, spare habit, but good general health, had a tumour at the angle of jaw, of four years' standing. (She resided in Tully, Onondaga Co., New York.) The tumour was about the size of an orange, very hard, with lancinating pains through it. Diagnosis, schirrus of the parotid gland. It was determined to extirpate it. Previous to extirpation it was decided to tie the carotid, which was done by myself, and Dr. Narmon Van Dusen, of Tully. At the commencement of the operation, considerable hemorrhage attended, but, the operation was finished, and the patient recovered, the wound healed, and the ligature came away on the 28th day of the operation. The patient was well one year from the operation, but I understood the tumour returned again in the course of two years, and she finally sunk under it. But she recovered perfectly from the operation of tying the carotid. This was in May, 1844, and has never been reported before.—*Ibid.*

Case of Excision of the whole of the Genital Organs.—By E. W. H. Beck, Asst. Surg. U. S. A. (Communicated in a letter to the Editor, dated, U. S. Hospital, *Matamoras, Mexico.* May 8, 1847.)—Sir.—Permit me to report to you a case that lately came under my care, which, from its oddity and interest, is certainly entitled to a page in your excellent journal. J. B., ætat. 31, stout build, bilious temperament, had been a member of the army, but now in the position of bar-beeper in a grocery; on the evening of March 9th, during a fit of delirium tremens, and unmanageable behaviour, was confined in the guard-house. A few minutes after his confinement he borrowed of a fellow-prisoner a short, thick, one-bladed, pocket knife, with which he completely excised the whole of the genital apparatus, close to the body. Flinging them violently into one corner of the room, he very heroically remarked—"Any d—d fool can cut his throat, but it takes a soldier to cut his privates off." This was at seven and a half o'clock. His companion gave the alarm, and the surgeon of the Mississippi regiment, happening to be in the same building, got to him about ten minutes after the accident. Every effort was made to secure the spermatic arteries, but their immediate retraction was so great that he failed in getting them. I was sent for in consultation, but being absent from my room at the time, the courier returned to the doctor stating the fact. The man was bleeding to death, and, in the desperation of the moment, he determined to apply the actual cautery to the bleeding surface.

At eight o'clock, a few minutes after its application, I saw him, and as the bleeding had almost entirely ceased, a large bunch of rags was applied as a compress, and secured by the appropriate bandages; his hips a little elevated; cold applications to the abdomen, and perfect rest and quiet for three hours; at which time he was removed to the General Hospital, and placed in the surgical ward under my care. The amount of blood lost was estimated by all present at near or quite one gallon. One fact worthy of notice here is, that eight or ten minutes after the bleeding commenced, complete consciousness was restored, nor did he exhibit a symptom of *delirium tremens*, after-

wards. On my visit next morning, he lamented his condition as a sensible man, asked my opinion of his danger; complained of no pain; skin cool; pulse slightly jerking, and tremulous; 88 in frequency. I ordered him barley water, and, fearful of hemorrhage, did not disturb the bandages until a disposition to pass water, which was early the following morning. To remove the dressing the more easily, a soft poultice was applied; and after some difficulty in finding the urethra and passing the catheter, evacuated the bladder, with but a little oozing of blood from the surface and one minute artery, which I secured by torsion. Ever after this, his water passed without artificial assistance; his pulse became equal and soft after a gentle aperient, and absolute diet. Dry dressings—until a yellowish sloughy secretion was coming off, when I washed with a solution of chlorinated soda, and applied simple cerate. The too luxuriant granulations, which soon arose, were suppressed with caustic, and the whole had kindly cicatrized in five weeks from the occurrence of the accident.

The last few days of the healing process, a large silver catheter, and afterwards, an oiled tent, was retained in the urethra, to prevent any contraction, to which there was a great tendency, and around which the orifice closed with a firm callous edge. The superior surface, or that above the urethra, presents a flat, or rather concave appearance, the posterior slightly elevated or ridge-like.—*Ibid.*

Poisons and Counter-Poisons Therapeutically considered. By M. Bouchardat.—Hôtel Dieu, in consequence of its central location, is the hospital most frequently selected by the administration and people of Paris whenever any accident or case of sudden disease occurs requiring immediate assistance. Among these there are of course a great many cases of poisoning, to which my attention has consequently been frequently directed. I have made also a great many experiments on animals in reference to counter-poisons, so that I think myself capable of giving some very useful information on this subject. I intend in this article to embody the results of such researches which have been as yet unpublished or scattered throughout my "Formulaire," my "Annuaires," the second edition of my "Manuel de Matière Médicale," or any other publications of the last year. I publish this notice in my "Annuaire" of 1847, because it is a work destined for the hands of both physicians and pharmaceutists, for I think that a thorough knowledge of certain parts of therapeutics is as necessary for the latter as the former; in fact, in urgent cases which call for immediate attention requiring a very exact knowledge of their nature, we are obliged to call upon the pharmaceutist, who is always at home, while the physician is very liable to be absent. In this respect there is a great deficit in the education of the pharmaceutist, which can only be remedied at present by publications like the one I here give.

The assistance required by any individual who has been poisoned may be considered under three heads. The poison having been discovered, the first indication is to evacuate it. For this purpose we em-

ploy emetics, emetics and cathartics together, purgatives, or the stomach-pump. The second indication is to administer the antidote. The third is to bestow upon the patient those attentions his condition requires, and which may be divided into those suitable in all cases of poisoning, and those adapted to each particular case.

1. To evacuate the stomach of its poison, tartar-emetic is most generally had recourse to; the dose is five centigrammes ($\frac{2}{3}$ of a grain) dissolved in half a tumbler full of water, and repeated two or three times after an interval of a few minutes. The patient should drink freely of tepid water, and it is often advantageous to assist the inclination to vomit by tickling the fauces. If tartar-emetic is not at hand, it may be substituted by the sulphate of copper, twenty centigrammes, (three grains,) dissolved in two table-spoonsful of water, and repeated if necessary; sometimes this emetic is preferable to the former because it acts more promptly.

When the poison is insoluble, and there is reason to believe that it has passed out of the stomach into the small intestines, it is better to administer an emetic and cathartic combined. Twenty centigrammes (three grains) of tartar-emetic may be dissolved with sixty grammes (two ounces) of sulphate of soda or magnesia in two pints of water, and then administered to the patient as rapidly as he can take it. It has been recommended in cases of poisoning from vegetable substances to use a strong solution of table salt, which acts both as an emetic and a cathartic, 50 grammes (an ounce and a half) to to the litre (two pints) of water. This is at times a very valuable therapeutic agent because it is always at hand, and we cannot administer an evacuant too soon.

When the poison has been taken per anum, and has entered the large intestines, we must have recourse to enemata. A very excellent enema may be prepared in these cases composed of twenty grammes (five drams) of senna, fifty grammes (an ounce and a half) of sulphate of soda and five hundred grammes (one pint) of water; this injection is much better than those more drastic in their action; these are slower in their operation, and I have often seen them prescribed without success. When we cannot succeed in procuring emesis, and the poison is still in the stomach, it is best to introduce the stomach tube and pump out the contents.

2. A counter-poison is, according to my view, any substance which will form an insoluble or inoffensive compound with the poison which has been taken. There are some general rules which it is necessary to mention in reference to the employment of these counter-poisons. We ought to give the preference to those which are perfectly innoxious, and which are most likely to be at hand. We should administer a quantity which will more than suffice to neutralize the poison, for the antidote may be rejected almost as soon as it is swallowed, and in the most fortunate cases even the compound is not wholly insoluble; then again we wish to destroy the poison as quickly as possible, and we can do this most readily by having the antidote in excess.

There are several counter-poisons which form compounds with the poisons which are possessed of a slight degree of solubility; these may after some time become redissolved in the intestinal canal, and cause a return of the bad symptoms. In these cases it is necessary to induce full evacuation of the stomach and bowels after administering the antidote.

When the poison has passed into the small intestines an insoluble counter-poison should be selected, otherwise its action might be limited to the stomach.

3. Poisoning is a disease produced by a known cause, and it is necessary to treat it with those remedies whose powers we have learned by experience. In almost if not quite all cases of poisoning, death results as a consequence of the great disturbance which takes place in the organs of respiration and circulation. It is necessary, therefore, to watch these organs, the constant exercise of whose functions is indispensable to life, and to take every means to prevent their suspension, for with their suspension comes death.

The circulation is to be kept up by sustaining the animal heat by means of warm clothing, frictions, hot water and sinapisms applied to various parts; sometimes it is well to practice moderate venesection. Respiration is assisted by the free admission of fresh air, by alternate pressure on the walls of the thorax, by blowing into the nostrils, or by galvanism. When the secreting organs eliminate readily any poison that may have been absorbed, it is important to increase the activity of such, as Orfila has recommended in advising the use of diuretics in poisoning from antimony and arsenic which are separated from the blood by the kidneys, and as we have recommended in prescribing those articles which increase the secretion of bile when the poison is separated by the liver;—this is the case with almost all the mineral poisons.

When the poison has been absorbed and cannot be easily and quickly removed from the economy, and if we cannot act upon it in the blood with the antidote, we must have recourse to remedies which are not injurious in themselves, and yet counteract the effects of the poison. This is the way that coffee acts in poisoning from opium.

We shall now commence the particular consideration of the individual poisons.

Poisoning from Acids.

I think I have explained in the most satisfactory manner the therapeutic effects of poisoning by acids.

In cases of poisoning from acids, the antidote alone is sufficient to restore the patient, without having recourse to evacuants.

All authors on therapeutics and toxicology recommend for neutralizing the acids the administration of magnesia, alkaline carbonates, soap, &c.; this is all very well, but it does not suffice. I think I have done a great service in founding a precise treatment to be pursued in these cases of poisoning.

In the first place (as recommended by every one) we must ad-

minister magnesia in excess; I prefer the hydrated magnesia, the preparation of which will be given in another place, in speaking of M. Bussy's work on an antidote for arsenious acid. This alkaline earth possesses some very great advantages; it is innoxious, purgative and insoluble, so that it can pass into the small intestines and neutralize any acid that may have passed into them; but its insolubility unfits it for fulfilling one very important indication. I have proved that in cases of poisoning by sulphuric acid, the acid is absorbed, and that when it gets into the blood it may cause clots to form which will interfere with the circulation and thereby cause death.* It is necessary, therefore, to follow up the sulphuric acid which has been absorbed, by giving after the magnesia some soluble alkaline substance which will be readily absorbed, and dissolve the clots which may be forming. The best alkali for this purpose is the bicarbonate of soda. It should not be given before the magnesia, because the large amount of carbonic acid which would be disengaged might facilitate those perforations of the stomach which are so much to be feared in poisoning by acids. Magnesia is not liable to this objection; and we must first neutralize with it the acids contained in the digestive organs. The following is the formula which I have often adopted in these cases of poisoning.

1. Twenty to fifty grammes (five to twelve drams) diffused in a litre (two pints) of water.

2. After the use of the magnesia, the patient must drink freely of a solution of bicarbonate of soda, ten grammes (two drams) to the litre being a good proportion for the solution.

Since I have been connected with the Hôtel Dieu, this treatment has been adopted at my request several times in very grave cases, and it has always been successful. It has been prescribed in cases of poisoning from sol. of indigo in sulphuric acid, from sulphuric acid diluted with its own weight of water, and from nitric acid.

N. B. It must be remembered that this treatment will not answer where the soda salts formed by the acid are poisonous, as is the case with arsenic acid, &c.

Poisoning from Alkalies.

The only treatment in these cases is that recommended by all authors. It is necessary to administer lemonade, or vinegar and water, in a sufficient quantity to neutralize the alkali which has been taken. If potassa or its carbonates have been taken, I prefer tartaric acid, for the potassa salts are not so innoxious as is generally supposed, and the bitartrate of potassa is the least objectionable of them.

Poisoning from Arsenious Acid.

Within a few years there have been a great many experiments made to discover which is the best antidote for arsenious acid, and

* In two cases, I, as well as C. Couriard, have found these clots lodged at the commencement of the femoral artery, in consequence of which the circulation in that leg had been stopped and mortification brought on, which caused the death of the individual.

the matter appeared to be entirely settled until some new views of M. Bussy have made very important additions to this subject.

M. Bussy has shown that magnesia, by forming an insoluble compound with arsenious acid, may be very advantageously employed in cases of poisoning by it;—M. H. Lepage has sent him a communication which goes to prove the efficacy of this new antidote. Although this may be the case, until the magnesia be well tested I should be unwilling to give up the hydrated sesquioxide of iron which M. Landras and I have thoroughly tested in various cases by experiments on animals.

If I were called to-day to render my assistance to a person poisoned by arsenious acid, this is the way in which I should act.

In the first place I should bring on emesis, according to the rules given above; then I should give the hydrated sesquioxide of iron diffused in two litres (four pints) of sweetened water. It is necessary to give this antidote in great excess, for, as M. Orfila has proved, if we give only what is actually necessary to form the arsenite of the peroxide of iron [properly, the subarseniate of the protoxide of iron] the power of the poison is not wholly destroyed.

If there is no hydrated sesquioxide of iron at hand, we must not hesitate to give *thirty grammes* (six drams) of the subcarbonate of iron, diffused in a litre of water while the former is being prepared. Experience has proved to us the great value of this course of treatment.

Our experiments on dogs have shown likewise that the persulphuret of iron in jelly is an antidote to the arsenious acid.*

I think it much better, however, at the same time, that we give the hydrated sesquioxide of iron, to administer twenty grammes (half an ounce) of magnesia. This must be a very valuable agent, not only because it forms an insoluble compound with the arsenious acid, but also because it purges and in that way follows up any arsenic that may have got into the intestines, and by increasing the number of evacuations it is likely to carry it off. To repeat then, I would give the hydrated sesquioxide of iron and magnesia both together; and as

*M. Mialhe has lately again strongly recommended the employment of the protosulphuret of iron in poisoning from arsenic, but in the experiments we have made, this article is much less efficacious than the hydrated sesquioxide of iron.

The persulphuret of iron is a very good antidote for several metallic substances; it acts like the protosulphuret to which M. Mialhe drew attention at the same time that M. Sandras and I were engaged in the experiments published in our article on the counter-poisons of arsenic, lead, mercury and copper, (Annuaire Thérapeutique, 1844.) We cannot admit with M. Mialhe the non-existence of the hydrated persulphuret of iron described by Berzelius: this compound is always formed when the alkaline persulphuret is in excess; but this is not the case when there is an excess of the persulphate of iron. We insist on this with M. Berzelius, and we have said that it was indispensable that the persulphuret of iron should be poured into the persulphuret of potassium.

We must observe also that the persulphuret of iron changes very rapidly when exposed to the air, sulphur being set free. This is the reason why we recommend it to be prepared with saccharine matter, and to be kept in well-stopped bottles.

this latter substance only acts when prepared in the manner given by M. Bussy, I shall give its preparation.

After administering the antidote, if the pulse is feeble and the skin cold, we must favor reaction by sinapisms, warm coverings, frictions, small bleedings, stimulating drinks, &c. When the cold stage is past and is followed by reaction, at the same time that we keep the bowels in an open state, we should give diuretic, nitrous drinks, as recommended by M. Orfila. In this way we will hasten the removal of the poison from the system, both by the bowels and by the kidneys.

Preparation of the Magnesia employed as an Antidote for Arsenious Acid.—(Bussy.)

Magnesia of the proper kind may easily be obtained in the following way: Fill a crucible half full of the carbonate of magnesia of the shops, then heat it until the bottom becomes of a dull red, and during the calcination the magnesia is to be constantly stirred with an iron spatula. When it is completely calcined the ebullition caused by the escape of the water and carbonic acid ceases, then a portion should be tested with muriatic acid, and if the calcination is complete there will be no escape of carbonic acid; but it is better not to perfectly calcine it than to expose it to too great a heat.

When the magnesia has been properly prepared it forms a hydrate without any difficulty; it makes with water at the ordinary temperature a consistent jelly, like alumina; two grammes of magnesia are sufficient to do this, with fifty grammes or more of water.

This quantity of magnesia diffused in a decilitre (three ounces) of water, is capable of combining, as we have said, with one decigramme (one and a half grains) of arsenious acid dissolved in a decilitre of water, so that after agitating them together for a moment and filtering, there will be no precipitate formed with sulphuretted hydrogen.

It is necessary to be careful not to use magnesia which has been too highly heated, or its effect will be almost entirely destroyed. Such magnesia is easily recognised in this way. Its density and its cohesion are greater than they should be, and instead of uniting with the water it falls to the bottom and forms a pulverulent deposit which may rest several months in contact with the water without becoming hydrated.

Hydrate of magnesia may also be prepared by precipitation, and this is very efficacious in cases of poisoning. 100 grammes of sulphate of magnesia in crystals contain 51.22 of water, 16.26 of magnesia, and 32.52 of sulphuric acid. It requires theoretically 38.21 of pure potassa, or 45.52 of the hydrate to decompose completely a solution of 100 grammes of the epsom salt and precipitate from it the magnesia in a hydrated form. But if instead of the pure potassa we take the ordinary caustic potassa, which always contains some chloride, sulphate, and carbonate, and an excess of water, it is best to take fifty for every hundred parts of salt to be decomposed. If the solutions are well diluted; if the sulphate of magnesia, for instance, is

dissolved in twenty-five times its weight of water, and the potassa in twenty times its weight, it will not be necessary to wash the precipitate, but simply to express the excess of liquid between the folds of linen; the small quantity of sulphate of potassa and of sulphate of magnesia contained in it can have no injurious effect. For administration it is best to diffuse the precipitate in a large quantity of water. Ten grammes of sulphate of magnesia dissolved in 250 grammes of water, decomposed, as above directed, by five grammes of caustic potassa dissolved in 100 grammes of water, will still leave a liquid containing an excess of sulphate of magnesia, which might still be precipitated with potassa. The precipitate prepared according to the above proportions, when dried between the folds of linen without being washed, and then diffused in water, will combine immediately with one decigramme of arsenious acid dissolved in a decilitre of water. I may observe that this proportion of arsenious acid is not at all the maximum quantity the magnesia is capable of neutralizing. The calcined magnesia when properly prepared appears to me just as good, and is more readily made than the precipitated hydrate.

Poisoning from Corrosive Sublimate and other Salts of Mercury.

M. Orfila has discovered that albumen is an excellent antidote for corrosive sublimate; its efficacy has indeed been proved in a great many cases; it is a substance very frequently employed, and is in the hands of every one, while at the same time it is very safe.

The moment any symptoms indicating poisoning by mercury show themselves, the patient should take some yellows and whites of eggs mixed with water. Too much albumen must not be taken, for if it did not vomit it might redissolve the precipitate.

It will be well at the same time to make the patient swallow immediately, or as soon as it can be procured, 50 grammes of hydrated persulphuret of iron, or 10 grammes of Raciborski's iron, the efficacy of which has been proved by M. Sandras and myself in cases of poisoning by the salts of mercury.

It is indispensably necessary to favour emesis and purging by the free use of fluid, mucilaginous drinks. Cullerier saved two hundred patients who had taken over doses of corrosive sublimate, by making them each drink in the course of twenty-four hours seven or eight litres of milk, flaxseed tea and warm water.

Poisoning from the Salts of Copper.

The best counter-poison for the salts of copper, the certainty of which I together with M. Sandras have proved by experiments on animals, is the metallic iron reduced by hydrogen; it must be administered in a quantity at least as great as that of the poison which has been taken.

If the hydrate of the persulphuret of iron can be had, it may also be prescribed with a great deal of benefit. 100 grammes of the hydrate diffused in 200 grammes of sugar and water may be given.

If neither Raciborski's iron nor the hydrate of the persulphuret is

to be had, albumen and water must be given, (six whites of egg mixed with a litre of water.) The albumen forms insoluble compounds with the salts of copper, as has been proved by Orfila in repeated experiments.

There has been a great deal of discussion on the utility of sugar in cases of poisoning from the salts of copper. The advocates of this substance maintain that the poison is decomposed by it. This explanation is erroneous; in fact, if the sugar, together with the gastric juice, is able to act at all on the salts of copper, it is at a higher degree of temperature than is ever found in the stomach. I know that persons poisoned by copper have been saved by being crammed with sugar, and by being vomited and purged at the same time, but the action of the sugar is different entirely from what they supposed. M. Sandras and I in our experiments on sugar as a nutriment, found that when it was given in excess, absorption was very considerably diminished, in accordance with the laws given by M. Dutrochet. It is easy to understand, therefore, how sugar may be useful while the poison is being removed by emetics and cathartics; but it cannot rank with counter-poisons, but with evacuants and substances which lessen absorption.

Poisoning from the Salts of Lead.

There are three things to be considered in the treatment of poisoning by the salts of lead.

1. The treatment of active poisoning by those salts taken in large doses and a small number of times.
2. The treatment of slow poisoning.
3. Prophylactic treatment.

I have already spoken of the two last heads in the second edition of my work on Materia Medica, and I have republished it in my "Annuaire" of 1846. I only give in this number the recipe for the syrup of the hydrate of the sulphuret of iron which M. Sandras and I have adopted, (page 101.)

It only remains for us to speak of the first head, or the active poisoning by lead.

The counter-poison on which the most reliance is to be placed, is the hydrate of the persulphuret of iron, which must be given to the patient in excess. It is best to administer the hydrate mixed with once or twice its weight of this syrup. If the hydrated sulphuret of iron cannot be had, 50 grammes of sulphate of soda or magnesia may be prescribed.

In both cases we may bring on vomiting and purging by the assistance of two drops of croton oil.

Poisoning by Sulphuretted Hydrogen or by the Effluvia of Privies.

In these cases of poisoning chlorine must be breathed by the patient, with caution, however. M. Labarraque saved a privy-cleaner who was asphyxied, by placing under his nose at intervals a sponge applied in a solution of chloride of soda. If the chloride of soda is not to be had, and all success depends on prompt action, we may get

at any grocer's the "eau de Javelle," which is a chloride of potassa, with which a sponge should be wet and carried cautiously under the nose of the patient. The disengagement of chlorine may be increased at pleasure by pouring a few drops of vinegar on the sponge. Another way, recommended by M. Mialhe, for obtaining a slow and gradual disengagement of chlorine, is to enclose in a compress a handful of the chloride of lime, and to pour on it a few drops of vinegar.

When the patient begins to breathe he must have fresh air, and the circulation must be kept up by brushing the skin with a flesh-brush, and by wrapping him with warm coverings. Venesection should be practised, and then he should take an anti-spasmodic potion with two grammes of ether.

Poisoning from the Liver of Sulphur, or its solution, known as the "radical de Barèges, solution pour bains sulfureux, sulfure de potasse liquide," (*or by any alkaline sulphuret.*)

Vomiting must be obtained immediately in these cases by administering freely of tepid water, warm mucilaginous drinks, and by tickling the fauces; if these means do not cause emesis, the stomach-pump must be used. Neither the tartar emetic, nor the sulphate of copper or zinc can be used, because they are decomposed by the alkaline sulphurets. We administer afterwards, so long as the matters ejected have the odour of putrid eggs, the solution of ten grammes of the proto, or what is better, of the persulphate of iron, in one litre of water, with 200 grammes of sugar, in divided doses. Instead of the sulphuret of potassium, which is poisonous, we will have the sulphate of potassa formed, which is purgative, and the sulphuret of iron, which is insoluble. I have lately discovered and proved the efficacy of this antidote, which is very valuable, for the double decomposition is instantaneous, and the two compounds which result are innoxious; but as the sulphate of iron is poisonous of itself, we must watch its employment, and stop giving it as soon as the vomited matters contain no alkaline sulphuret.

Poisoning from Hydrocyanic Acid.

1. There is no time for administering an emetic.

2. In poisoning by hydrocyanic acid the antidote must be administered immediately; for if death follows at all, it does so quickly.

When the acid is anhydrous, or even diluted with its own volume of water, it acts so quickly that M. Larroque thinks there are no hopes in administering the antidote; but if it is the medicinal acid, and especially if that has been diluted, the absorption is much more gradual, and we may hope for success in administering the antidote of M. Smith, which may be prepared beforehand, as follows, and which, according to M. Larroque, may be kept several months by the following precautions: To the solution of the two sulphates of iron we add a solution of sugar; we then precipitate with the carbonate of soda, and keep it in vessels filled and closely stopped.

Sugar,	60	grammes.
Sulphate of protox. of iron,	55	"
Bisulph. of deutox. "	90	"
Water,	250	"
Carb. of soda in crystals,	500	"

Chlorine employed concurrently with the counter-poison of Dr. Smith may be of great service.

3. When the animal is apparently lifeless, free effusions of cold water on the spine should be made. I, as well as M. Louyet, have tested this plan, recommended by Dr. Robinson.

Poisoning from Vegetable Alkalies and Substances which contain them.

The largest proportion of the vegetable alkalies may be regarded as very dangerous poisons to man. They act in small doses and are very quickly absorbed. It is of the greatest importance, therefore, to evacuate the stomach of them as quickly as possible, according to the directions previously given.

The only counter-poison which has been as yet discovered, is the compound solution of iodine. I have given in my "Annuaire" of 1842 all the details of the insoluble compounds which result from the reaction between this preparation and the vegetable alkalies; they are iodurettted hydriodates, and are insoluble in acidulated water. Of all the insoluble compounds formed with a vegetable alkaline base, there is none which is so insoluble in acidulated water as this.

The following is the formula which I make use of for an antidote to vegetable alkalies:

Iodine,	20	centigrammes.
Iodide of potassium,	40	"
Water,	500	grammes,

not 5 centigrammes, as has been printed (p. 33) in the second edition of my "Manuel de Matière Medicale."

This solution should be given in doses of half a tumbler full at a time, and vomiting should be kept up so that none of the precipitate shall remain behind.

This counter-poison has been used with success in cases of poisoning by opium, the salts of morphia, aconite, and I have tried it on animals poisoned by *opium*, the salts of *morphia*, *belladonna*, *stramonium*, *tobacco* and *strychnia*. It may be also used with success in poisoning by *cicuta*, *œnanthe* and other *umbelliferæ*, by *stavesacre*, *white hellebore*, *sabadilla*, *colchicum* and the salts of *quinine*, but it is of no use as an antidote to *digitalis*.

I cannot say whether it would be useful in cases of poisoning by the *agaricus*.

The compound solution of iodine is always more useful as a counter-poison for vegetable alkalies than the nut-galls or tannic acid; for although the latter forms an insoluble compound in almost all cases, it is very liable to be redissolved by an excess of acid, which is often found in the stomach.

Poisoning by Opium and the Salts of Morphia.

1. The stomach must be emptied by emetics, by cathartics, and, if possible, by the stomach-pump.

2. The compound solution of iodine should then be administered.

3. The narcotic effects should be counteracted by the use of coffee in large doses. This is not an antidote, but nevertheless it is an excellent remedy to counteract the narcotic effects. The best way is to administer it without sugar, but with the addition of a small quantity of alcohol. I give it thus because I wish it to be absorbed very quickly, and it is known that sugar retards absorption in the stomach. All our experiments on the digestion of sugar go to prove this fact; alcohol in small quantity favours absorption. The following is the recipe I make use of.

Coffee, roasted and ground, 50 grammes; from which we obtain by lixiviation, 500 grammes of the fluid extract; to this add 20 grammes of brandy, one-fourth of which is to be taken at intervals of five minutes. Coffee may also be administered by injection.

Poisoning by Belladonna, Stramonium, Tobacco, and other Acro-Narcotics.

1. Evacuate thoroughly the digestive organs.

2. Administer the compound solution of iodine, keeping up at the same time the vomiting.

3. Bleeding, and if reaction is pretty great, cooling drinks, baths, &c.

Poisoning by Nux Vomica, St. Ignatius' Bean, Strychnia, Brucia and other products or compounds of Strychnia.

Strychnia and its compounds does not give the least offence to the stomach, and it is for this reason that carnivorous animals, such as lions, wolves and dogs, whose stomachs are so sensitive that they reject all other poisons, may be readily destroyed by this substance.

1. It is best, therefore, to bring on full emesis as soon as possible; strong salt water or tartar emetic, are the agents to be employed in preference.

2. The compound solution of iodine should be given at the same time.

It is necessary to give an excess of the antidote, for I have proved that the resulting compound, although wholly insoluble in acidulated water, could still poison. It is true it requires a larger dose and a longer time for the poisoning to take place, but still it is best to give plentifully of the antidote and keep up free emesis.

3. We have as yet no good clinical reports on the means necessary to counteract the tetanic convulsions caused by the absorption of strychnia; there are, however, some general principles that may be followed without danger.

Death in these cases always results from asphyxia, because the respiratory muscles, whose constant action is so indispensable to life, become so rigid that they lose their functions. In this respect strych-

nia differs essentially from other poisons, the preparations of mercury for instance; the latter destroy vitality, while the former increases to a high degree the action of the involuntary muscles, which is the cause of the asphyxia. If the respiration could be continually kept up until the paroxysms had passed off, all danger, all disease would disappear, unless it be a lassitude following the intense excitement. This is not the case with other poisons; convalesence in those cases is slow, difficult and often doubtful, for they attack the vital organs.

In poisoning by strychnia, then, respiration must be kept up by every means, by inspirations of air or of oxygen, by alternate pressure on the thorax, &c.

Opium, the most prompt and sure agent to counteract the tetanic effects of the strychnia, should be given either by the mouth or the rectum as circumstances may indicate. I would administer without hesitation from thirty to forty drops of Sydenham's laudanum in fifty grammes of water and watch the effects.

I stop here, and will complete this subject I hope at some future period, when I will review the more important points.

Means of Recognising the Presence of Morphia in Cases of Poisoning by that Substance.—This method is detailed in the Gazette Médicale, as proposed by M. Mermu. The solid matters ejected from the stomach are first to be washed with water, slightly acidulated with acetic acid. The product of the several washings is to be mixed with any liquids which can be collected. If one has liquids only at his disposal, those are to be mixed with the water, acidulated as above. In either case, the resulting mixture is then to be evaporated to dryness, and treated with boiling alcohol, to separate the animal matters. To the alcoholic liquid, previously filtered, some tincture of gall-nuts is to be added—the tincture being made of 125 parts of alcohol with 250 parts of coarsely powdered gall-nuts; and the whole to be let digest fifteen days, which will precipitate the little animal matter dissolved by the alcohol, and the combination of tannin and morphia thence resulting will remain in solution.

The liquid is next to be filtered, mixed with a small quantity of distilled water, and then a solution of gelatine to be added in excess, in order to decompose the tannate of morphia. The morphia having gone over to the gelatine, the tannin with which it was previously in combination becomes dissolved by the spirit. To separate the precipitate of tannin and of gelatine, it is necessary again to filter; and when the alcohol is evaporated, the morphia will be left, which may be recognized by its particular tests.—*London Lancet.*

Hydatids of the Lower Lip.—Dr. Heller, of Stuttgard, has seen five cases in which acephalo-cysts were developed in the lower lip, and always on its inside. The causes of this affection are unknown; in two cases it was attributed by their patients to their having bitten the lip. It appears first as a small and hard lump, which rapidly increases, so that in one month it may attain the size of a cherry; it

gives rise to pain, deformity, and difficulty in moving the lip. The hydatids are seated immediately beneath the mucous membrane, and are transparent. The largest Dr. Heller has seen was of the size of a nut. If one succeeds in removing them without opening their cavity, they are found to be made up of a round vesicle, full of fluid, transparent as water, and with a diaphanous and tender wall. The only means of curing this affection consists in the extirpation of the cyst, and this must be total, otherwise it will reappear; hence, as a precautionary measure, nitrate of silver may be applied after the removal of the tumour.—*Ibid.*

Simple Treatment of Prolapsus Ani. By Dr. Hake.—Take a piece of sponge four or five inches long, an inch and a half wide, and half an inch thick—the more elastic a bit you can find the better; roll this, in a damp but not wet state, pretty tightly, so that the roll, if relaxed, would be ready to spring back into its full length, and it will then make a roll of some little substance, round, but still soft; and its length, when thus rolled, will of course be an inch and a half. Apply it then lengthwise to the anus, so that it may be pressed, about the centre of it, quite home and firmly to that part. Taking care that it may remain so, stretch a length of adhesive plaster, about fourteen inches long, and three and a half wide, more or less, straight across the nates, rather low down, and contrive so that while the plaster adheres on one side, you press the other side closer to its opposite before you fix the length finally where it is to remain. Then sit down, at first gently upon it, and it will become very firm and fast as long as the plaster is good. I need not say that these two pressures constantly going on do the work capitally, and without any inconvenience worth speaking of—I mean, the two pressures of the roll of sponge always striving to unwrap itself, and the cross-band of adhesive plaster always keeping it from doing so by holding the nates sufficiently close together to hinder it. The working is really perfect when a little use and management has got a person into the way of it. But to facilitate matters, I will set down a few observations, at the risk of being tedious and more particular than I need be.

I never put this on until that time of day when I am going to be standing about, or to take exercise, whether walking, riding, or driving; but it should be put on then for all of these. In the evening, I take off the plaster, but leave the sponge in its place, where it has got by that time so firmly fixed by gradual spreading and swelling, that there is no danger that anything short of a great exertion will loosen it, and it is of course more comfortable to do without the plaster when it is not wanted. The sponge should be washed in cold water every time it is taken off, and in cold weather the plaster should just cross the fire before it is put on; in moderately warm weather it will adhere of itself, especially if it is sat upon for half a minute. The same plaster is better the second day than even the first, and will do very well the third day—this where economy is an object.

Wash the parts where the plaster goes every morning, or oftener, with cold water, or water and vinegar, wash them well, and the skin will never suffer.

If the plaster leaves something sticky behind it when it is taken off, rub it with a very little spirit of wine, and the towel will remove it.

If there be an irritation about the anus, or gut that comes down, wash it with vinegar and water, and the relief will be wonderful, and that part of the evil soon cured. This wash cannot be too much praised for this purpose, for piles, and for the like. I leave it for you to say whether something might not be dropped upon the sponge, or the sponge dipped in something which would promote a complete cure. What I have said is perfectly cleanly, secures exercise and comfort, and very gradually, I believe, tends to set things right again.

The relief is, indeed, so perfect, and it is relief from such suffering, that, without a bit of braggadocio, I do think no sufferer from such malady would feel that he could be grateful enough for being brought acquainted with the treatment I have described, though its perfect management will require a little experience at least, and perhaps some advice at first.—*Ibid.*

Case of Malformation of the Heart, in which death resulted from Obstruction of the Trunk of the Pulmonary Artery. By Thomas B. Peacock, M. D. The subject of this case was a boy, fifteen years of age, who had from early life exhibited slight appearances of cyanosis. Twelve months before his death he was thrown from a cart, and after that period the lividity of the countenance became much more marked, and he was subject to frequent attacks of chest affection, and to palpitation. His last illness was of eight days' duration, and commenced with rheumatic symptoms, followed by difficulty of breathing and pain in the chest. When admitted into the Royal Free Hospital, he exhibited very marked cyanosis, and a loud murmur, accompanying the impulse of the heart, was audible in the præcordia, and along the sternum. At the situation of the base of the heart the murmur masked all other sounds; but toward the apex, and the lower and right side of the sternum, it was followed by a loud second sound. He died a few hours after his admission. On examination, the aorta was found to arise in part from the right ventricle, and the orifice and trunk of the pulmonary artery were of very small size. The right ventricle was also separated by a supernumerary septum into two cavities, one being the infundibular portion, giving origin, as usual, to the pulmonary artery; the other consisting of the sinus of the ventricle, communicating with the aorta. The abnormal septum was incomplete over a space about equal in size to that by which the aorta communicated with the right ventricle. The orifice of the pulmonary artery was provided with only two valves, and these were so thick and rigid as to occasion a further contraction of the aperture. The trunk of the vessel was entirely obstructed by partially decolorized coagula, which were laminated and adherent to the thickened and diseased valves and coats of the vessels. The author remarked

that the case was closely allied to the ordinary form of malformation in which, with congenital contraction of the pulmonary artery, the septum of the ventricles is defective at the base, so as to allow the aorta to receive its supply of blood from both ventricles. Its great interest, however, lay in the division of the right ventricle into two cavities communicating with the aorta and pulmonary artery respectively, and the free admixture of the venous and arterial currents of blood, which must consequently have taken place throughout the whole of the boy's life. So far, however, from this having been productive of marked cyanosis, it was stated that there was but little peculiarity in the boy's appearance till the supervention of secondary disease in the pulmonary artery after the fall, twelve months before his death. The cause of death was also, it was remarked, unusual. Though obstructions in the terminal branches of the pulmonary artery had been shown by Baron and Paget to be of frequent occurrence, the writer was not aware of any other case in which the trunk of that vessel had become obstructed.—*Lancet.*

On Porous Rarefaction of the Bone, consequent upon gout. By Alexander Ure, Esq., Fellow of the Royal College of Surgeons, and Surgeon to the Westminster General Dispensary.—The author observed that, upon making a transverse section of a digital phalanx, taken from a gouty subject, a peculiar speckled appearance was perceptible. The medullary canals were seen preternaturally enlarged, and filled with a cretaceous matter, which effervesced with acids. The Haversian canals were, in like manner, irregularly enlarged and choked up with this substance. The osseous lacunæ or corpuscles were, in some places, increased in size, and rounder than ordinary, but, for the most part, less distinctly marked. The canaliculi, more especially in the vicinity of the medullary canals, were replete with the above deposit, thicker than normal, and in obvious communication with the medullary canals. There was thus induced porous rarefaction of the bone. The author stated that the matter in question consisted chiefly of carbonate of lime, while a portion of tophus, detached from the adjunct phalangar joint, was almost wholly composed of urate of soda. In reference to the above peculiar condition of the osseous structure, he remarked, that Dr. Gerlach, of Mayence, whose co-operation he had in the above research, subsequently ascertained that precisely the same appearances were present in the section of bone taken from a person whohad been afflicted with morbus coxæ senilis. Arthritic osteoporosis is an affection of a very insidious character. It commences almost imperceptibly, creeps on stealthily, year by year, and is accompanied by occasional pain and swelling Although usually occurring in individuals hereditarily predisposed to gout, it is not necessarily preceded by a fit of that malady. While the author believes it to be but little amenable to treatment, he is of opinion its progress may be somewhat retarded by judicious hygienic measures; and the attendant pain and uneasiness relieved by topical steam baths, in conjunction with the vapour of mineral naphtha, and by various other soothing means.—*Ib.*

Alleged Presence of the Plague in the Metropolis.—Dr. Tweedie has addressed a letter to the Times, in reference to the prevalence of typhus fever under a severe form in the metropolis. After stating that the admissions to the Fever Hospital during the present year have been but little above the average of the last five years, he says:—"In regard to the character of the cases received since January last, it is important to observe, that a very large majority have not been cases of typhus fever, but of inflammation of internal organs, more especially of the lungs, which every medical practitioner knows to be invariably accompanied with more or less feverish disturbance of the system. Indeed, for some time past, the proportion of cases of genuine typhus fever has been unusually small, much smaller than, from the late scarcity of provisions, and consequently inadequate supply of food, could have been anticipated.

"London, therefore, affords at this time a striking contrast to many of the large provincial towns, in which typhus fever, from causes which it is unnecessary to advert to at present, prevails to such an alarming extent.

"And lastly, with respect to the tendency to inflammation of the glands of the face and neck—the circumstance on which the apparent connexion with plague is founded—it may be remarked, that this symptom is occasionally observed in very mild cases of fever, but that it has not been a very frequent occurrence lately, is evident from the fact that it has been observed in only five of 452 cases received into the Fever Hospital since January last; and that of these five only two have died, the fatal event in one being the result, not of the glandular inflammation, but of old standing diseases of the chest.

"From these facts I think it may be deduced,—1st. That typhus fever is not at the present time alarmingly prevalent in London; 2d, that in its character it bears no analogy to the plague; and 3d, that the inhabitants of London have great cause of thankfulness that as yet the metropolis has been visited with a much less proportionate amount of epidemic fever than any other city in the kingdom."

The mortality from typhus fever is at present much above the average! the deaths last week were 52 to a spring average of 34.—*London Medical Gazette.*

Production of Albuminous Urine by Cantharides.—In a communication on Cystitis from cantharides, made by M. Lavalleé to the Academy of Medicine, at its sitting on the 15th inst., it is stated by the author that under the use of this vesicatory, at whatever part of the body it may be applied, and however distant from the hypogastric region, albumen is liable to show itself in the urinary apparatus, under three forms: 1, in solution: 2, as a deposite in the urine: and 3, as a false membrane produced in the bladder. The albumen is contained in the urine under these circumstances in much greater proportion than in Bright's disease:—the author states that in some instances, after a day's rest, the deposite constitutes more than half the height of the liquid. As an exception, the urine may contain no

traces: but then vesical symptoms, such as pain and tenesmus, are absent. This is a new form of artificial albuminuria."—*Ibid, from L'Union Médicale.*

The Gastric Juice.—Lehmann has confirmed the statements of Pelouze and of Bernard and Barreswill, regarding the absence of free hydrochloric acid in the gastric juice, and has further indisputably proved the existence of free lactic acid in that secretion. To prevent any fallacy in the experiments, dogs were kept fasting for 12 or 16 hours, and then fed about a quarter of an hour before death with bones freed as much as possible from skin and fat. The gastric juice was almost perfectly clear, being scarcely opalescent. From 100 parts there were obtained 1·808 of solid matter, 0·25 of hydrochloric acid, and 98·097 of water. This hydrochloric acid is formed by the decomposing action of the lactic acid at a certain degree of concentration, even in the cold, upon certain chlorides, especially those of calcium and magnesium, but not those of potassium and sodium. To prove the presence of lactic acid itself with certainty, the gastric juice was concentrated *in vacuo* to one twelfth of its volume, the residue mixed with alcohol of 0·85, the spirituous solutions from several stomachs evaporated to the consistence of a syrup, and the residue exhausted with absolute alcohol. The residue of this was exhausted with ether, and the ethereal extract mixed with water, to remove the fat, and filtered. On further concentration, more drops of oil separated from the filtrate, and the fluid still contained hydrochlorate of ammonia.

The liquid was partly saturated with lime, partly with magnesia, and the salts formed were purified by several recrystallizations from alcohol and water. The magnesian salt gave results approximating very closely to the formula Mg O, La+3 HO."—*Ibid, from Dr. Day's Report on Chemistry.*

Turning a Substitute for Craniotomy.—Dr. Simpson states that he has practised turning as an alternative for craniotomy and the long forceps, in several cases in which the head had been morbidly detained at the brim of the pelvis, from the slighter forms of disproportion between the two; and he believes it to present various advantages over embryulcio. It gives the child a chance of life; it is more safe to the mother, because it can be performed earlier in the labour, and more speedily; it enables us to adjust and extract the head of the child through the imperfect pelvic brim in the most advantageous form and direction, the head flattening *laterally* under the traction; the neck of the child (if it were living, or only lately dead,) is so strong as to allow us to exert such a degree of traction upon the obstructed head, that the sides of the cranium might become very greatly compressed, or even indented under it, and that without necessarily destroying the child; and, lastly, he observes, it is a practice which can be followed when proper instruments are not at hand, and the avoidance of instruments is generally desirable when it is possible.—*Prov. Med. and Surg. Journ. from Monthly Journ. of Med. Science.*

Syrup of Hydrocyanic Acid.—At the request of several medical practitioners a very elegant syrup of prussic acid has been devised by Dr. Reich, affording an eligible means of administering that potent substance in a certain dose. He prepares it by adding to a syrup of sweet almonds a definite quantity of amygdaline. His recipe is as follows:—Take of sweet almonds two ounces; immerse them for the space of a night in cold distilled water, and in the morning remove the skin by the pressure of the finger and thumb; then pound the almonds in a deep mortar, adding two ounces of the purest sugar. Pound together in a mortar, either of porcelain or marble; then by degrees add distilled water two ounces, and strain, with the application of slight force. To this emulsion add sugar of the purest kind two ounces, and promote the solution of the sugar by mixture alone, heat being avoided. To four ounces of this syrup add seventeen grains of amygdaline, and rub together in a porcelain mortar. Much of the syrup need not be kept ready prepared, as its extemporaneous formation is so easy. An ounce contains a quarter of a grain of real prussic acid.—*Ibid. from Buch. Rep.*

Benzoate of Ammonia in Gout.—Dr. Seymour states that he has frequently used this medicine in cases in which the small joints were red and swollen, or where fluid was deposited in the joint of the great toe, and also in cases where the lithate of soda existed in the joints of the fingers, and that it was decidedly useful. He thinks that early depositions have been arrested, and large depositions diminished, under the use of this medicine. He regards it as a good diuretic, and as especially adapted to those cases of dropsy in which an irritable stomach renders the employment of ordinary diuretics impracticable. He has seen also the albumen in renal dropsey diminish under the use of the benzoate of ammonia.—*Ibid, from Thoughts on Several Severe Diseases, &c.*

Binoxide of Mercury in Skin Diseases.—M. Ibreisle has reported the results of his experience in the use of the binoxide of mercury as a local application, in diseases of the skin, especially those of a strumous or syphilitic origin. Indolent ulcers of the extremities have frequently yielded to this application, as have also phagedenic ulcerations. The author regards this preparation as an excellent remedy for the removal of the indurations which accompany syphilitic ulcers; he has likewise used it with success in pustular syphilides.

The formula is that of an ointment, consisting of one part of the oxide, to four or five of lead. Some caution appears to be necessary in its employment.—*Ibid, from Gazette Médicale.*

Relative Value of Different Medicines Ordinarily Empolyed in Syphilis.—A long memoir on this subject by MM. Boys de Loury and Costilhes closes with the following propositions:

1. The preparations of gold and silver are worthless in constitutional syphilis.

2. The iodide of potassium has no influence upon the progress and duration of chancre, particularly the indurated variety: but in such cases mercury is to be preferred. The same may be said as respects buboes, mucous tubercles, papular and pustular syphilides.

On the other hand, iodide of potassium is invaluable in syphilitic disease of bones, and in syphilitic tubercles of the skin with or without ulceration. It may be stated in general terms that the iodide is successful in proportion to the anterior duration of the disease, and the degeneration of the constitutional powers.

Iodide of potassium acts like a charm in nocturnal pains. United with the bin-iodide of mercury, it is valuable in syphilitic cachexia, and in cases which have resisted ordinary mercurial treatment.

3. Mercurial fumigations are only available in healing local symptoms, and should not be employed as a means of affecting the system.

4. Mercurial frictions should be used only in those cases in which irritability of the mucous membranes forbids the internal administration of mercury.

5. The proto-iodide of mercury is the best medicine which can be employed as an antisyphilitic, as well in the primary as the consecutive symptoms of the disease.—*Ibid, from Gazette Medicale.*

Cod-Liver Oil.—M. Bretonneau has come to the conclusion, after many trials, that common train oil is quite as efficacious in struma and other cases in which it is given, as the cod-liver oil. This is an important fact, if true, and demonstrates that the virtues of the latter oil are to be ascribed to its fatty principles, not to the small portion of iodine contained in it.—*Ibid, from Bulletin de Thérapeutique.*

New Muscle in the Eye.—The *Oest. Med. Woch.*, No. 40, mentions that in the human eye and also in that of the mammifera, Dr. Brüche states that he has discovered a new muscle. This muscle appears in a manner to have the same power as that of the iris. It consists in the grey ring which is found in front of, and in the neighbourhood of the iris on the external surface of the choroid, and which has been usually known under the name of the ciliary circle. Brüche gives to this muscle the name of the expansor muscle of the choroid.—*Monthly Journal of Medical Science, from Gaz. Med. di Milano.*

On the Frequent Occurrence of Alkaline Urine in Health, and the Errors of Diagnosis occasioned by a Want of Knowledge of this Fact. By Dr. Adolph Krukenberg. Brunswick.—The fact—first promulgated by Wöhler—that the internal use of salts of vegetable acids and fruits containing them, causes the urine to be secreted alkaline, has been too much neglected by succeeding physiologists and pathologists. Our author found that a much smaller quantity of fruit was necessary for the production of this phenomenon than has hitherto been supposed, viz.—2 to 4 oz. of apple pulp, or 12 plums, weighing without the stones scarcely $1\frac{1}{2}$ oz., sufficed to make the

urine alkaline and hazy from phosphates, or if clear on excretion, heat caused their deposition; the addition of a little hydrochloric acid caused an effervescence like champagne; too much liquid, a bladder already filled with acid urine, or a disproportionate allowance of flesh, interfered with the success of the experiment. How often are those ill of chronic complaints who use a moderate diet, and with whom fruit is a useful and favourite article, troubled with hazy and alkaline urine, causing anxiety alike to themselves and their physician, which a little physiology does away with. In the simple chronic nephritis of Rayer, the chief symptom is the alkalinity of the urine; in no case was there a sectio cadaveris; and some of the cases recovered so quickly, as to justify a doubt as to the correctness of the diagnosis; although he inculcates careful dietetic treatment, it is evident from his work that the semiotic influence of fruit in small quantities was unknown to him. This article is not forbidden at La Charité, and friends of the patients often carry them some. In several of his cases the alkalinity of the urine seemed to depend on purulent admixture, and consequent rapid putrefaction; and in one it seemed to be kept up, if not produced, by the use of an alkaline saline water (Contrexeville.) The alkalinity of the urine has also been used by Prout as a diagnostic sign of certain spinal affections. These he divides into two great classes:—1st, Those arising from depressing emotions and weakening influences; and in these he recommends the use of fruit, and fluids containing malic acid, as cider and perry; to these, and not to any disease, our author refers the alkalinity of the urine. 2d, Injuries of the spine: our author states, that neither Rayer nor himself had ever been able to observe the urine alkaline in cases of injuries of the spine unless there were some existing or consecutive affection of the mucous membrane of the urinary passages, producing purulent admixture, hastening thereby the putrefactive changes in the urine. In the three cases detailed by Prout, two had stricture of the urethra, and the third retraction of the testicle, and a mucous sediment,—all bespeaking the existence of some such affection. A microscopical examination, by showing the existence or absence of pus cells in the urine, would have confirmed the diagnosis, or at once corrected it. How far inattention to diet may have led to error, cannot be specified. Prout also mentions, without explanation, what has been already referred to,—viz. That although alkaline urine, by copious secretion, be clear and bright, yet boiling causes it to deposit a phosphatic sediment, which falls without any such previous process, if the secretion be more sparing; the phosphates separate before the boiling point, and from their great specific gravity fall rapidly, and may thereby, as well as by their solubility in acids, be distinguished from the albumen found in Bright's disease.—*Ibid, from Zeitschrift für Rationnelle Medizin.*

On the Nature of Tetanus caused by Strychnine. By Professor Hermann Meyer, Zurich.—The tetanic convulsions, which follow the exhibition of Strychnine, are well known; as also the fact that

these convulsions can be readily excited as reflex movements. The general use of strychnine in experiments on the nervous system is very much based on the knowledge of these facts, and invites to a discussion of the question as to the mode in which the tetanus originates. The following experiments were instituted for this purpose.

Exp. I. The crural nerve of a frog, suffering from convulsions induced by strychnine, was divided; these immediately ceased in the limb.

Exp. II. No convulsions took place in a limb, in which the nerve had been divided previous to the exhibition of the poison.

From these well known experiments, it follows that the originating cause of the convulsions must be sought for in the central parts of the nervous system. But the question ensues, does the tetanus originate from an affection of an individual portion of the central organ, or in an affection of every individual portion? The following experiments, also somewhat well known, tend to throw some light on the subject.

Exp. III. The brain was removed from a frog; tetanus ensued in the trunk.

Exp. IV. Brain and cerebellum removed, result as in the preceding.

Exp. V. Medulla oblongata removed; same result.

Exp. VI. Medulla oblongata divided; general tetanus ensued.

Exp. VII. The spinal marrow was removed posterior to the giving off of the nerves to the anterior extremities; result as in the preceding case.

From these experiments, it follows that the origin of the tetanus is to be sought for in some cause common to all the central organs of the nervous system, The following experiments show what this cause is.

Exp. VIII. The posterior column of the entire spinal marrow was removed from a frog by means of a fine pair of scissors. A solution of strychnine was then either exhibited by the mouth, or applied directly to the spinal cord. Convulsions occurred only in the jaws and eyes.

Exp. IX. The posterior column of that part of the cord giving off nerves to the posterior extremities was removed. Tetanus occurred only in the head and anterior extremities.

Exp. X. The same portion of cord giving off nerves to the anterior extremities was removed. Tetanus occurred only in the head and posterior extremities.

From these experiments, the author thinks himself entitled to conclude, that the presence of the motor nerves, even though uninjured, does not suffice to produce tetanus; but that there must also be an uninterrupted connexion of the sensory and motor fibres within the central part of the nervous system. The only motions, however, which we recognize as dependent on the sensory fibres, are those which we know to be the cause of reflex movements. The

above experiments, therefore, would lead to the conclusion, that tetanus caused by strychnine arises entirely from general reflex movements, and that the action of the strychnine not only excites the motor fibres, but goes to increase the necessary cause from which reflex movements arise. If this be true, tetanus must cease, even when the spinal marrow is uninjured, provided the conditions under which reflex movements arise are removed. In order to test this, the following experiments were instituted:—

Exp. XI. The skin of a frog was rubbed over with strong prussic acid (30 per cent.,) so that the superficial peripheral extremities of the nerves were paralyzed. Strychnine was exhibited; no tetanus ensued, except when the animal was strongly shaken (thrown about, for example.)

Exp. XII. After laying open the spine of a frog, the posterior nervous roots were divided. Same result as above, or as when the posterior column of the cord was irritated with a needle.

Exp. XIII. The same experiment was repeated in a frog in which tetanus was present; it ceased immediately on division of the posterior roots, and only recurred under the conditions first stated.

From these experiments, then, it may be concluded, that tetanus arising from the action of strychnine originates entirely and alone from reflex movements produced by the strychnine exciting to increased action the primary cause of the reflex motions themselves.

The next question that occurs is, what is the primary cause of these reflex movements? Here, however, we find ourselves in the field of physiological controversy; as far as regards the question first considered, it is a matter of little moment how the controversy may be decided. It may be remarked, however, that tetanus induced by strychnine cannot be attributed to a general increased excitement of the nervous system. Were this the case, stronger contractions of the muscles dependent on the anterior cord laid bare in Exp. VIII. IX. and X. should have occurred rather before the administration of the poison than after it; but this was not the case. Other experiments, which require to be repeated, however, seem to show that the cause of reflex motion is to be sought for in the grey matter of the spinal cord, that the strychnine acts, therefore, by exciting to activity this grey matter, or rather the ganglionic in masses composed of it. These experiments are the following:—

Exp. XIV. A needle was carefully passed down through the centre of the spinal marrow, of a beheaded frog, as far as the point where the nerves to the anterior extremities are given off, and then withdrawn. Strychnine was then administered. Tetanus occurred in the posterior extremities only.

Exp. XV. After laying open the spinal canal, the grey matter of the posterior half of the cord was destroyed as far as it gave off nerves to the posterior extremities. The movements of the latter

were little affected by the operation; but tetanus did not ensue after the exhibition of strychnine.—*Ibid, from Ibid.*

On the Origin of Solid Bodies in Synovial Cavities. By Dr. Bidder.—The author had charge of a case of long standing swelling of the knee joint, which finally opened, allowing a quantity of granular matter to escape. The grains composing this matter were of a uniform size,—$1\frac{1}{2}'''$ long, $\frac{3}{4}'''$ broad, $8\frac{1}{2}'''$ thick,—regular, flat-oval, clumped together in masses of variable size by a glutinous transparent fluid, present in but a very small quantity; they were highly elastic, presented no trace of a pedicle; their cut surface seemed homogeneous to the naked eye, and presented no trace of organization under the microscope; a chemical examination showed them to be composed of albumen. Mickel's opinion, so recently substantiated by Hyrtl, does not, therefore, hold good in every case; our author acknowledging its correctness in many cases, as well as the possibility of some cases arising from hydatids, (Dupuytren,) viz. those in which the bodies are possessed of a laminated structure, and have an internal cavity, notwithstanding that other distinctive marks may be lost, (vide Gluge. Anat. Mic.,) throws out another hypothesis as an explanation of their mode of origin in cases like the present, viz., that in certain cases an increased flow of blood, and consequent secretion of synovia, may force off the epithelium cells; that these subsequently increase, partly by endosmosis, partly by precipitation on their external walls; the peculiar life of the cell wall in certain cases altering the contents both with respect to colour and consistency, no membrane being perceptible under the microscope, may proceed from its stretched and thinned condition, from its being originally structureless, or from its homologation with its contents. The bodies examined by him consisted almost entirely of albumen, easily obtained from the synovia: their uniform size likewise presupposed their origin to have been from similar forms, endowed with similar capacities for life, conditions fulfilled by the epithelium cells. This theory can only hold good where the synovial cavities have an epithelial covering, which is wanting in bursæ mucosæ, and mucous sheaths of tendons.—*Ibid, from Ibid.*

Note on the Exhibition of Sulphate of Quinina. By M. Donovan, Esq., M. R. I. A.—A student in medicine, M. Desvouves, some time since published, in the *Revue Médico-Chirurgicale* of Paris, a notice on an easy and certain method of removing all the bitterness of sulphate of quinina. In 1842, being at Martinique, attacked with an obstinate intermittent fever, he took sulphate of quinina which suspended the access. This medicine which, as we know, is very disagreeable to swallow, on account of its bitterness, was presented to him one day at the moment when he was going to take a cup of coffee for his breakfast.

He mixed 20 centigrammes (3½ grains very nearly) of sulphate of quinina in a spoonful of coffee, and swallowed it, without perceiving any bitterness. The accession of the fever being interrupted, M. Desvouves discontinued the use of the medicine; but resumed it as the disease reappeared in 1843 and 1844; and he declares that, in ten trials, the bitterness of the sulphate of quinina was entirely destroyed by the coffee, and that its febrifuge agency was in no degree impaired.

Being afterwards in attendance on a child of six years of age, M. Desvouves administered 20 centigrammes of sulphate of quinina in the same manner: but the child not being accustomed to take coffee made on water, some spoonfuls of milk were added, without any complaints of the bitterness of the medicine, although it soon triumphed over the disease. In four days, 120 centigrammes (22 grs.) were taken, and the fever did not reappear. From this it might be inferred that coffee made on water, or mixed with milk, possesses the property of removing the bitterness of sulphate of quinina, without injuring its febrifuge properties.—(*Jour. de Médecine de Mai*, 1847, *p.* 204.)

Supposing for the present that all these are well-observed facts, it might be conceived that the tannic acid present in the liquid coffee would decompose the sulphate of quinina, forming tannate of quinina, which, being an insoluble salt, would have less taste than if it were in solution; but in this respect it would have no advantage over the sulphate itself.

Decoction of coffee contains tannic acid. If sulphate of quinina be mixed with cold decoction of coffee, no change takes place; the sulphate remains undissolved. But if the decoction be very hot, the sulphate dissolves and is decomposed; the tannate of quinina partly precipitates on cooling, and partly remains suspended, forming a muddy liquid.

If to some cold decoction of coffee, a little sulphate of quinina and a few drops of dilute sulphuric acid be added, solution takes place; but that the sulphate has been decomposed will appear by the deposition of copious clouds of tannate of quinina which soon make their appearance.

Such are the facts concerned; but none of them are of any avail, either in explaining or supporting the statement of M. Desvouves. I mixed cold decoction of coffee with sulphate of quinina, and swallowed it; the taste was intensely bitter. I dissolved some sulphate of quinina in very hot decoction of coffee; the taste of this was equally bitter. I promoted the solution of the sulphate in cold decoction of coffee by means of two drops of dilute sulphuric acid; but the taste was as bitter as ever. This being my result, I forbear to theorise on the alleged destruction of the bitterness. The decoction which I used was of the usual strength made for the table. If intensely strong coffee disguise the taste of the sulphate, it must be by decomposing it, and forming the insoluble tannate.

It may be proper to observe, that there is no occasion to seek new means of disguising the bitterness of sulphate, or as it is more properly named, disulphate of quinina, at least for the use of those who can swallow a pill. For patients who cannot take it in the state of solution, which is undoubtedly the best, the form of pill is convenient. It is true there is an objection to this form, on account of the insolubility of the salt, but it is easily removed by the employment of the *neutral sulphate* of quinina, a crystallizable salt, which easily dissolves in water without any addition of acid. The neutral sulphate is in fact the preparation that should have been originally introduced into medicine, instead of the insoluble disulphate, which sometimes causes much inconvenience. The dose of both salts is much about the same; the neutral sulphate may be given with propriety in a somewhat larger quantity if the prescriber wishes to be critical.

A convenient formula would be the following: the sulphate of quinina, for the sake of clear distinction, should be marked *neutral*.

R. Sulphatis quininæ neutralis grana duodecim.
Pulveris glycyrrhizæ subtilissimi grana octodecim.
Theriacæ q. s. M. fiat massa quam divide in pilulas duodecim.

As many of these pills may be directed to be taken as the prescriber wishes: they will remain soft, and hence will have no chance of passing through the intestinal canal undissolved. No astringent substance should be contained in the pill: hence the mass must not be formed with conserve of roses. The pills may be silvered to disguise the little bitterness which otherwise they would have had.

According to M Pierquin, thirty-two grains of carbonate of magnesia conceal the taste of six grains of disulphate of quinina, without interfering with its virtues. It is also affirmed that anise or fennel perfectly masks the bitterness of this powerful febrifuge.—*Dublin Medical Press.*

Observations on the coexistence of Variola and Scarlatina, with remarks on the coexistence of other eruptive fevers. By J. F. Marson, Surgeon to the Small-Pox and Vaccination Hospital, London.—During the last eleven years, the author of this paper has seen, at the Small-Pox and Vaccination Hospital, seven persons who had variola and scarlatina simultaneously. These patients were apparently suffering from small-pox only on their admission, but in the course of a few days scarlet fever also developed itself. In each case, all the leading symptoms of scarlatina were well marked, and the eruption was evidently different from the roseola which frequently precedes the eruption of small-pox, and also different from the erythema, (somewhat resembling it,) arising from the miasm of hospitals; in fact, it was the florid red eruption peculiar to scarlatina, which no other eruption

exactly resembles. Three of the patients were unprotected, and four of them had been vaccinated. All recovered but one, the particulars of whose case were given in full. Three other patients with variola and scarlatina existing at the same time, have been seen, within the last few years, at the London Fever Hospital. Reference was made to the opinion so strongly expressed by Mr. Hunter, that no two fevers could be coexistent. Several cases were then alluded to, that have been published by different observers, in France and England, of the coexistence of variola and scarlatina, variola and rubeola, variola and pertussis, variola and vaccinia; rubeola and scarlatina, rubeola and vaccinia, rubeola and pertussis; varicella and vaccinia, pertussis and vaccinia. The individuality of erysipelas, as a special eruptive fever, was commented on, this disease being shown to arise, almost invariably in hospitals, from the impure air produced by morbid animal effluvia. The French were acquainted with the fact, fifty years ago, of small-pox and scarlatina existing together occasionally, some cases being referred to by the author, published by M. G. Vieusseux, at that period, but the subject has nearly escaped attention, or at least remark, by writers of this country.—*Dub. Med. Press.*

Sir Astley Cooper was kind enough to make us acquainted with his researches on the structure and functions of the thymus gland, with which he was then occupied; and I am the more pleased to recall this circumstance, because it enables me to record a reply of Sir Astley's, which proves delightfully the perfect truth and honesty with which he conducts his researches and experiments. While he was pointing out to us, on a most delicate preparation, the two membranes which he has found in what he calls the reservoirs of the thymus, I said to him, "You said, and it is." "No," he replied, "It is, and I said." The scientific character of the great English surgeon breathes in this response.—*Prov. Med. and Surg. Journ. from Six mois de Sejour en Angleterre par S. Pironde, D. M.—British and Foreign Medical Review*, vol. 8, p. 534.

When Dr. Dimsdale inoculated Catherine the Second for the small-pox, that Princess (who, whatever might have been the vices of her moral character, possessed a very large and magnanimous mind,) took precautions for securing her personal safety in case of her death. Finding herself much indisposed on a particular day, she sent for Dimsdale, whom she had already remunerated in a manner becoming so great a sovereign. "I experience," said she, "certain sensations which render me apprehensive for my life. My subjects would, I fear, hold you accountable for any accident that might befall me. I have therefore stationed a yacht in the Gulf of Finland, on board of which you will embark, as soon as I am no more, and whose commander, in consequence of my orders, will convey you out of all danger." This anecdote, so honourable to the Empress, I heard from one of Dimsdale's sons, above forty years ago.—*Ibid, from Sir N. W. Wraxall's Posthumous Memoirs of his own Times*, vol. 3, p. 199.